3

ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

ROBLIN-CARTWRIGHT PLANNING DISTRICT
BACKGROUND STUDIES

Municipal Planning Branch
Morden
September, 1985

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Chapter 1 - INTRODUCTION

1.1 LOCATION AND PHYSICAL CHARACTERISTICS

The Roblin-Cartwright Planning District is located in the south-central part of the Province (Map 1.1) about 60 miles south-east of Brandon along the Canada-U.S. border.

The R.M. of Roblin has about 270 square miles of mostly agricultural land. However, the most striking feature of the District is Rock Lake which combines scenic beauty, excellent wildlife areas and tremendous potential for outdoor recreation.

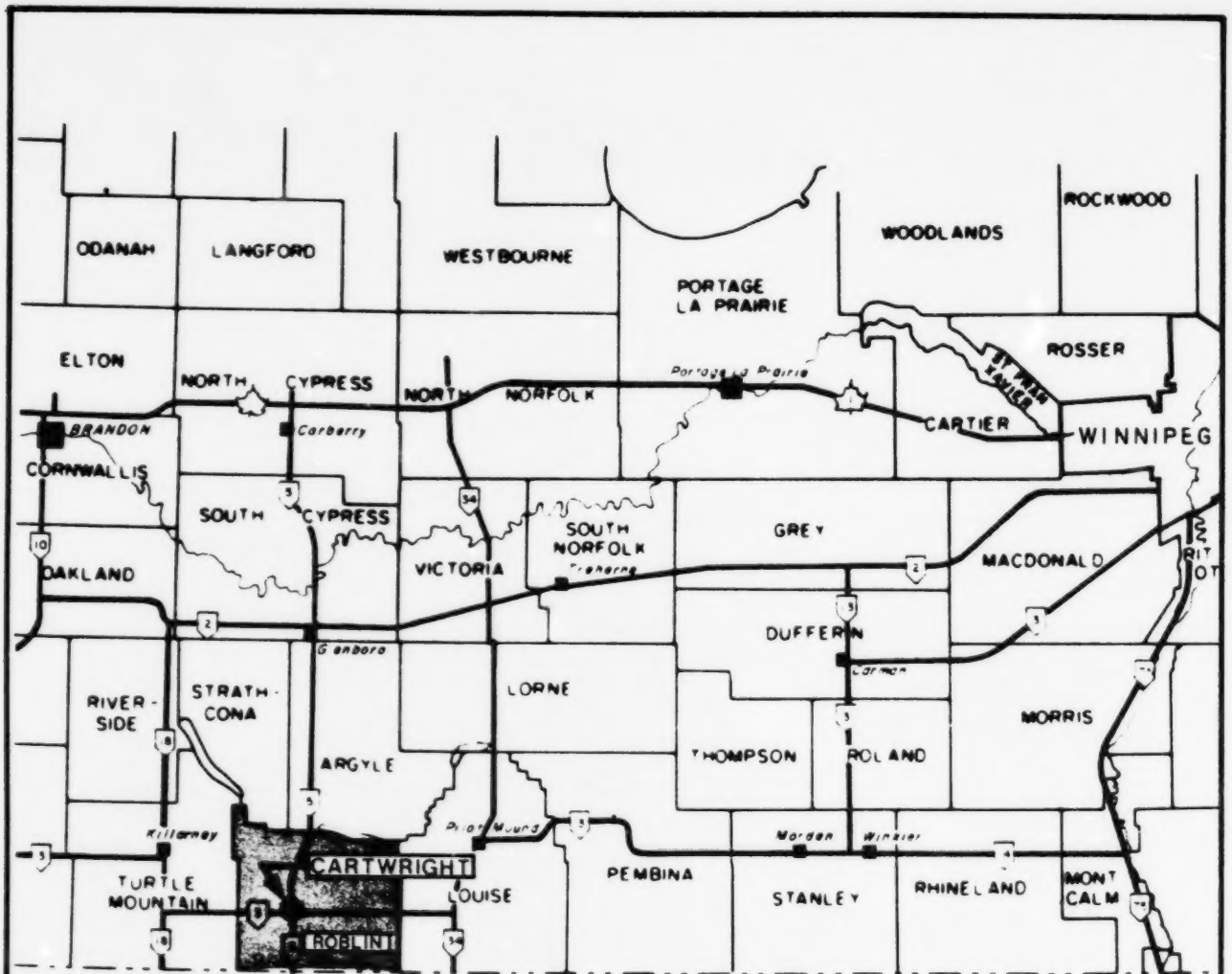
Rock Lake and the other lakes of the Pembina River system, Lorne and Louise Lakes, form the northern boundary of the District. Neighbouring municipalities are Turtle Mountain on the west, Louise on the east and Strathcona and Argyle of the north.

There are two villages in the District. Mather is an unincorporated village district of less than 100 people in the west part of Roblin just north of P.T.H. #3. Cartwright is an incorporated village with a population of slightly less than 400 people. It is in the central part of Roblin at the junction of P.T.H. #3 and #5, on the west bank of Gimby Creek, a tributary of Badger Creek.

1.2 SCOPE OF THIS BACKGROUND STUDY

The purpose of this background study is to document land use patterns and development trends in the Village of Cartwright and the R.M. of Roblin and from this information, to identify issues which should be considered in the Planning District's Development Plan. Emphasis is placed on land use in Cartwright, Roblin the the U.V.D. of Mather and on population trends and projections. Also of particular interest in this District is agriculture and the natural resource potential of Rock Lake. Finally, there is a review of the economy and finances of the district and the historic resources.

The information for Chapter 5 - Natural Resources was provided by the Department of Natural Resources in their study entitled Planning Report on Natural Resources - Roblin-Cartwright Planning District, February, 1985. The information for Chapter 6 - Agriculture was provided by the Department of Agriculture. All other information was compiled by the Department of Municipal Affairs from Statistics Canada, discussions with the Planning District Board and research from a number of sources. An earlier report (September, 1980) by Municipal Affairs entitled Background Report - Village of Cartwright Basic Planning Statement was used as a source for some Cartwright information.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

LOCATION MAP

Map 1.1

1.3 GENERAL FINDINGS

Each chapter of this Background Study concludes with a summary of concerns and issued identified. The following is a description of the general findings of the entire study.

The population of both Roblin and Cartwright has declined significantly since 1961 but seems to have stabilized since 1976. It is expected the population of Roblin will remain constant or decline only slightly over the next 10 years. Cartwright's population will increase slightly but this may depend on the development of additional senior citizens housing. There are no indications of any significant population changes in the District.

Agriculture is and will remain the predominant use of rural areas. There are no real threats to agricultural dominance but there is a need for some land use regulation to minimize land use conflicts in rural areas and in the U.V.D. of Mather.

Since only very limited growth is expected in Cartwright there is no need to plan for major expansions of the developed portions of the community. There is however a need to protect the village from potentially hazardous industrial or agricultural uses and to minimize conflicts between land uses. In other words, residential, commercial, industrial and recreational areas need to be identified and protected.

The most significant natural resource of the District is Rock Lake and the Pembina River system. It has potential as a regional wildlife and recreation area which has not been developed to any great extent but which should be protected for future development. The groundwater system throughout the District is extensive and more than adequate in terms of volume but some areas may be subject to pollution hazards.

There is a wide mix of agriculture in the District and the soils, while not the best quality, are suitable for a range of activities which allow local farmers some flexibility. While agriculture is not threatened, certain agricultural activities may adversely affect villages (Cartwright or Mather) or may threaten wildlife or recreation areas. Agriculture may have to be regulated in this respect.

All of the economic activity in Cartwright and Mather centers around servicing agricultural production. There are no major industries involved in processing local agricultural production for sale to other markets therefore agriculture is almost the sole export of the District.

In terms of Municipal finance, both Roblin and Cartwright have very low debts and are capable of taking on significant additional debts, according to the standards of the Department of Municipal Affairs. However, since there is no growth, there is no increased assessment. Therefore, any new debts will probably have to be repaid by increased taxes for existing ratepayers.

The historic resources of the District have not been identified in any systematic and comprehensive fashion however, a report by the Historic Resources Branch should provide this information in the near future. Until that is available the District Board and the Councils should evaluate any development proposal from a historical perspective and try to determine if any significant historical building or site may be threatened.

In general the District does not need an extensive and detailed Development Plan to guide change. Policies should be aimed at preserving agriculture and the natural resource potential of Rock Lake and providing for the orderly development of the villages. The zoning regulations which enforce this Development Plan need not burden the people or the Council with comprehensive regulation of every aspect of development. They need only provide protection for the existing development and the tools to allow the Councils to regulate new development to fit in with the existing patterns. Development is slow enough to allow Councils to react to unexpected changes with appropriate regulations as they are needed.

Chapter 2 - POPULATION

2.1 INTRODUCTION

The populations of Roblin and Cartwright declined significantly during the 1960's and early 1970's but has stabilized during the past 10 years. Based on these trends and indications of likely agricultural, industrial and commercial activity, this Chapter projects a very slight increase in the population of Cartwright over the next 10 years and a stable or slightly decreasing population for Roblin. However, it should be noted that in populations as small as these the opening or closing of a small business has a significant affect on the overall populations figures.

2.2 CARTWRIGHT POPULATION

Table 2.1 shows that the Village population dropped significantly from 1961 to 1971 but has made small increases since then. In general the population of the Village is stable at the present.

TABLE 2.1

POPULATION BY AGE GROUP - 1961-1981

	0-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	Total
Cartwright											
1961	40	45	66	34	21	37	55	57	47	80	482
1971	20	20	25	25	10	20	45	35	70	80	350
1976	25	35	25	25	15	35	40	45	50	80	375
1981	20	20	30	25	15	45	30	35	60	110	390
% of Total 1981	5.1	5.1	7.7	6.4	3.8	11.6	7.7	9.0	15.4	28.2	100
Roblin											
1961	181	156	137	96	54	137	186	131	119	98	1295
1971	80	135	170	125	40	90	135	160	75	85	1095
1976	65	100	130	135	75	105	120	135	95	75	1035
1981	95	85	105	110	65	150	105	120	100	70	1005
% of Total 1981	9.5	8.5	10.4	10.9	6.5	14.9	10.4	11.9	10.0	7.0	100
District											
% of Total 1981	8.2	7.5	9.7	9.7	5.7	14.0	9.7	11.1	11.5	12.0	100
Province											
% of Total 1981	7.4	7.7	8.0	9.4	9.2	16.1	11.0	9.7	9.6	11.9	100

Source: Statistics Canada

Particularly significant in the Cartwright statistics is the high proportion of people in the 55 to 65 and the over 65 age groups. Cartwright is, to some extent, a retirement community. A comparison with the Provincial population breakdown confirms the low proportion of young people and the large population of retirees. The population increase from 1976 to 1981 seems to be mainly an increase in the 65+ age group. Further population increases may depend on the construction of additional senior citizens housing to keep this retiring population in the community.

Figure 2.1 shows a breakdown of the population into age groups by sex. It illustrates the high proportion of elderly, particularly women. It also shows the near absence of 20-24 year age group.

FIGURE 2.1 POPULATION BY AGE & SEX

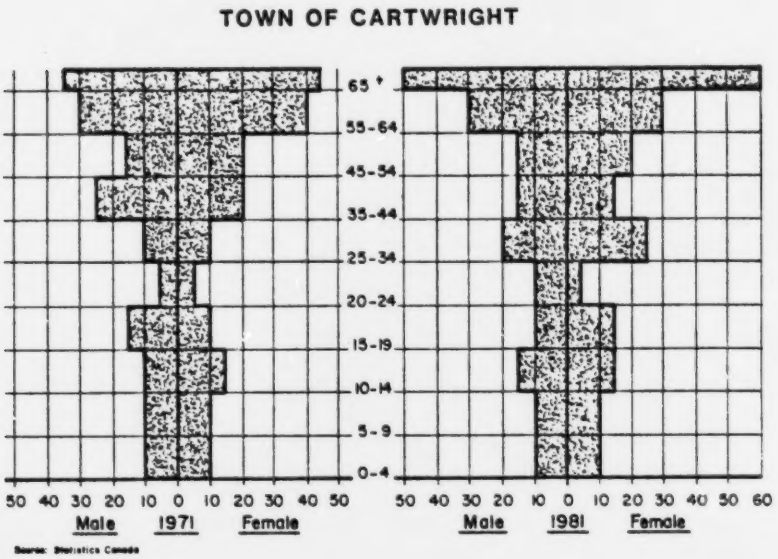


Table 2.2 shows a slight drop in the average number of people per household and a corresponding increase in the number of households. This suggests that, although the population is fairly stable, there is still a demand for more dwellings to accommodate the same number of people.

TABLE 2.2

AVERAGE NUMBER OF PERSONS PER HOUSEHOLD
PLUS (TOTAL NUMBER OF PRIVATE HOUSEHOLDS)

	1971	1976	1981
Cartwright	2.5(140)	2.4(150)	2.3(165)
Roblin	3.8(285)	3.5(265)	3.3(260)

Source: Statistics Canada

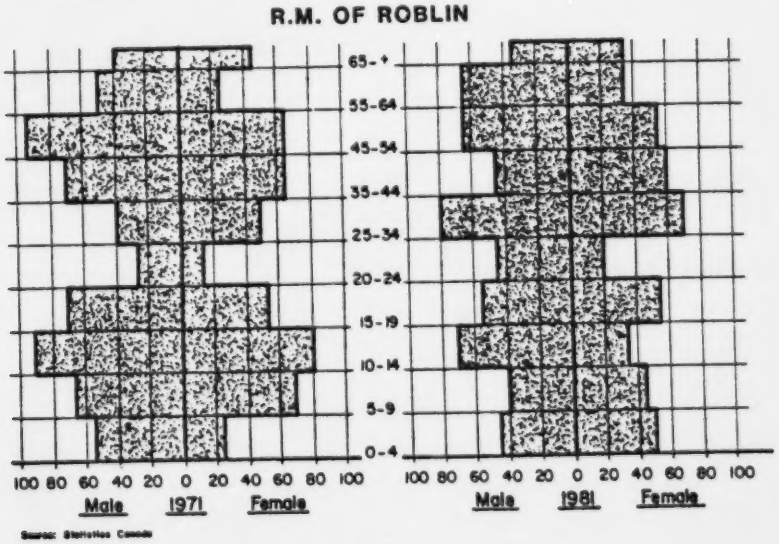
Part of this increase in the number of households in Cartwright may be due to the opening of Badger Creek Lodge senior citizens apartments. In fact, given the age of the population, part of the demand for more dwellings may be best met by more senior citizens apartments.

2.3 ROBLIN POPULATION

Roblin's population has shown a much more significant decline than the Village of Cartwright; a decline which is reflected in most rural municipalities of the Province. This decline generally results from an increase in the size and a corresponding decrease in the number of farms. The Agriculture Section of this report describes a 28% drop in the number of farms from 1961 to 1981 compared to a 22% drop in population during that period. However, the population decline seems to be leveling off and may be more stable in the future.

The age breakdown in Table 2.1 and Figure 2.2, unlike the Cartwright statistics, shows higher proportions in the younger age groups and a lower proportion in the 65 and over group. The "missing" older people are no doubt part of that retirement population identified in the Cartwright statistics.

FIGURE 2.2 POPULATION BY AGE & SEX



2.4 PLANNING DISTRICT POPULATION

The combined Roblin-Cartwright population statistics present a much more balanced picture, or a least one that bears more resemblance to Provincial averages. The overall picture of the District is one of a rural population that is fairly stable but is being affected by two issues. One is the provincial pattern of increasing size and decreasing number of farms. Large family farms or corporations are consolidating farm land. The second issue is the national pattern of decreasing family size. These two issues, plus the development of Senior Citizen housing in Cartwright has led to the decline in rural population.

Fortunately, it appears that the population is no longer leaving the District but is instead relocating in Cartwright. This is illustrated by the slight increase in the Cartwright population.

The major exception to the picture of a fairly balanced district population is the small 20 to 24 year age group. This probably reflects the need to leave the area after high school for additional training or education and the lack of opportunity for unskilled labour.

2.5 POPULATION PROJECTIONS

The purpose of making population projections is to allow Councils to make any necessary plans to accommodate population changes. The two principal factors considered are past trends and current expectations.

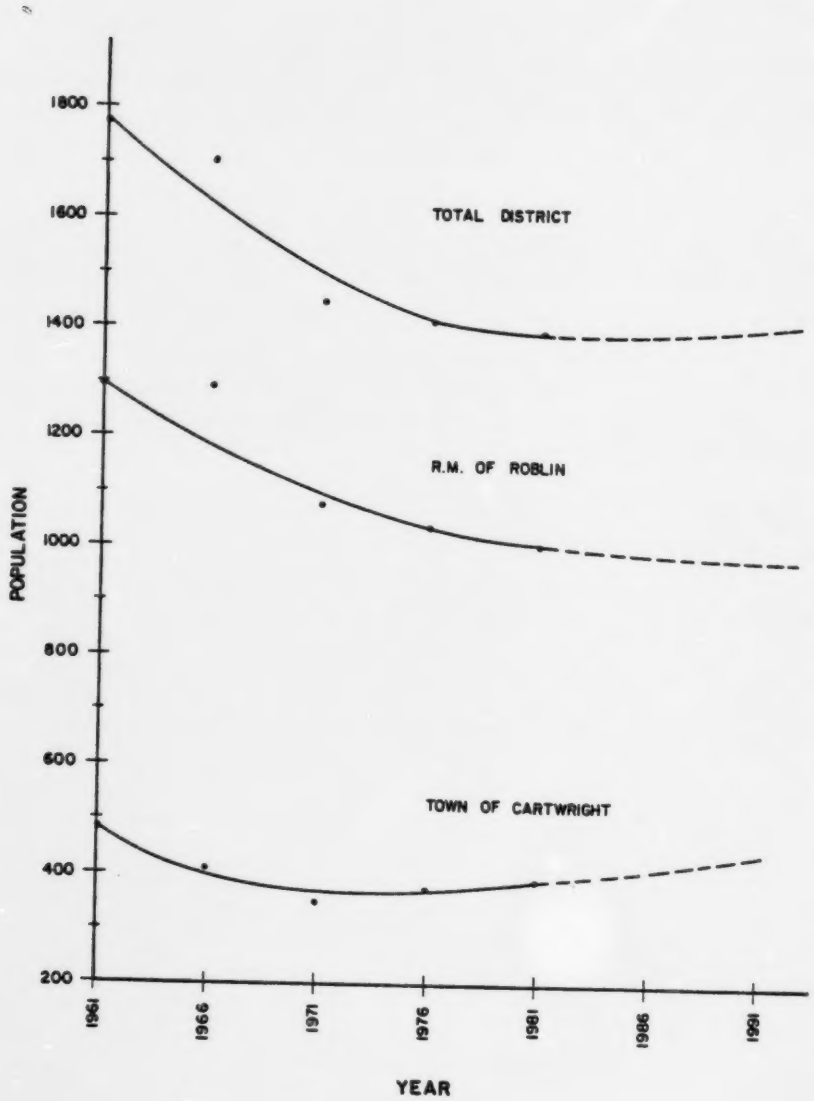
Figure 2.3 illustrates the changes in the size of the population since 1961. These changes are discussed in the preceding sections. Generally, they indicate a stable to slightly decreasing population for Roblin and a stable to slightly increasing population for Cartwright.

There are no current expectations which are likely to significantly alter this pattern. Roblin will likely continue as an agricultural municipality which is serviced by the businesses of Cartwright and other towns in this region.

Figure 2.3 projects a continuation of recent population trends past the know figures of 1981 to 1986 and 1991. With a population this size there is little benefit to projecting too far into the future since the opening or closing of a single business can make such a significant change in the population.

These past trends indicate that there will be a minor decrease in the rural population (including Mather) of about 15 to 25 people from 1981 to 1991. The Village may remain stable or may experience a slight increase of about 45 to 55 people if no businesses close and if additional senior citizens apartments can be developed.

FIGURE 2.3



In Cartwright this may represent an increase of about 1.3% or about 5 people per year. This will require about two new dwelling units (houses or apartments) each year for accommodation.

Most of this increase will probably be people retiring from the area and moving into the village. Whether this retiring population chooses Cartwright may depend on the availability of good seniors apartments such as Badger Creek Lodge.

Cartwright's response to this minor growth will obviously not be to plan for major subdivision activity. Infilling of the existing serviced areas should be encouraged and, although detailed expansion plans are not necessary, Council should identify the areas into which they will be prepared to extend services as needed.

2.6 POPULATION ISSUES

1. The number of farms will continue to decline slightly. Some of the lost population may be accommodated in the R.M. by non-farm residential development.

2. Cartwright can expect small increase in population, particularly from an inflow of people retiring from farming in the surrounding area if additional senior citizens housing and possibly a nursing care facility can be constructed.

3. Mather may also get some of this retiring rural population but is unlikely to see any significant growth.

4. There seem to be few opportunities for young people in the District, a fact which is true of many rural areas.

5. Municipal services in Cartwright (roads, sewer, water, sidewalks, etc.) will not need any significant expansion in the future due to population changes but will need maintenance and upgrading to maintain a high standard.

Chapter 3 - RURAL LAND USE

3.1 INTRODUCTION

This Chapter describes the patterns of development and the major planning issues in the R.M. of Roblin and the Unincorporated Village District of Mather.

Roblin is an agricultural municipality. It began to develop in the 1870's as settlers arrived along the Boundary Commission Trail from Emerson to homestead. The coming of the C.P.R. in 1885 brought more settlers, better supplies and an improved access to a market for their produce.

Clearwater, Mather, Cartwright and Holmfield were service centres for this agricultural activity. To some extent all of these centres still provide these services however Cartwright has the leading role as a local service centre.

3.2 PHYSICAL CHARACTERISTICS

The Agricultural component of this study (Chapter 5) provides greater detail on the soil and other physical characteristics of the R.M. Generally the land is gently rolling and draining to the north-east into the Rock Lake/Pembina River system. A number of creeks enter the R.M. from the U.S. and from the R.M. of Turtle Mountain to the west and the R.M. of Louise to the east. In the past there has been some critcism about the amount of water entering from the U.S. and also the speed with which water is allowed to drain from Louise into Roblin.

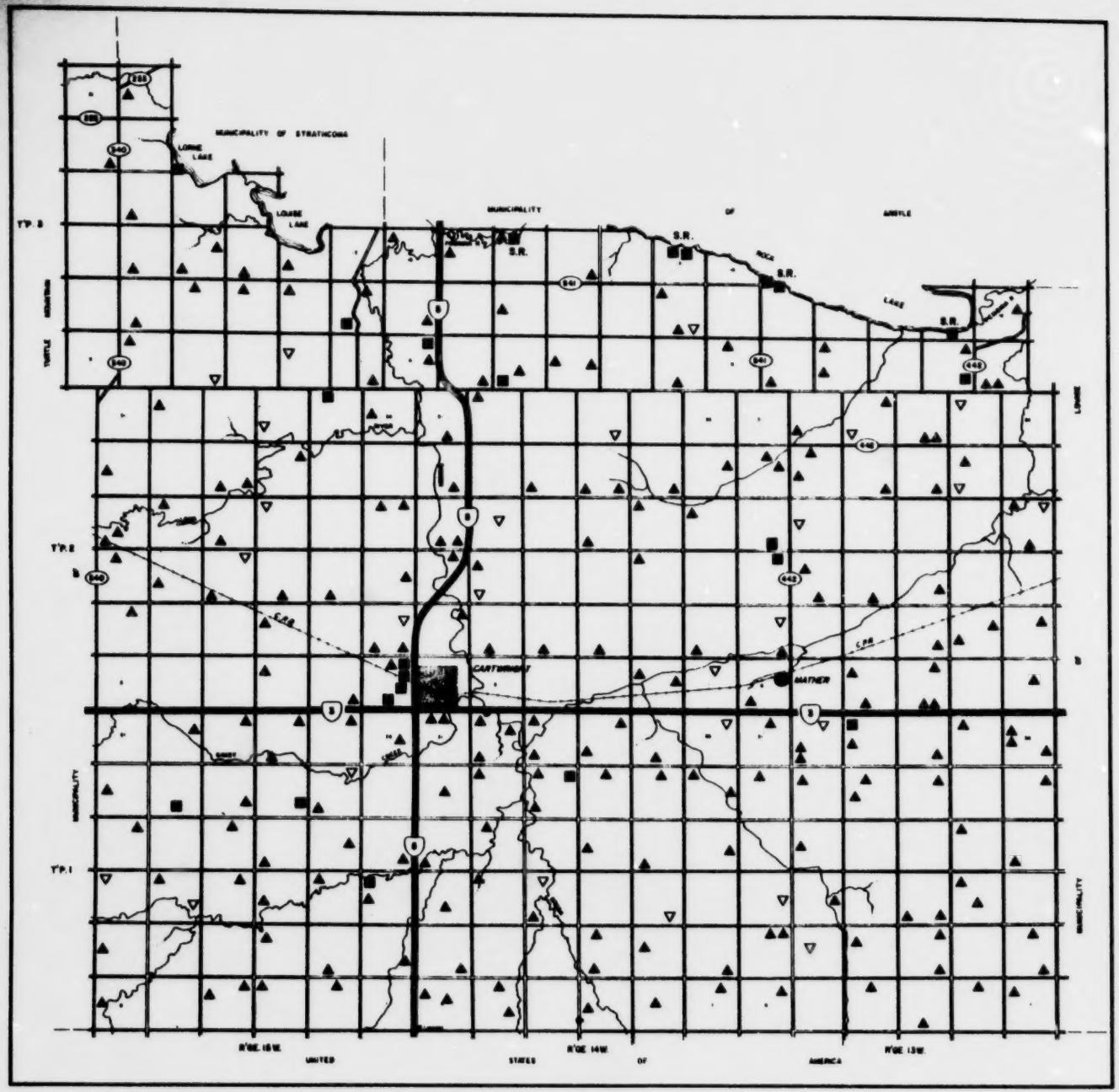
Fields in Roblin tend to have potholes, particularly in the northwest and these present some problem for local drainage. The northern edge of the R.M., along Rock Lake, is heavily treed and provides an excellent wildlife habitat area.

3.3 DEVELOPMENT TRENDS

a) Land Use

Map No. 3.1 shows land use in Roblin which, with few exceptions, is agricultural. This includes farm uses, farm buildings and residences accessory to agricultural production. The exceptions include the following:

i) Approximately 15 rural residences (dwellings not associated with agriculture) generally scattered throughout the R.M. but with a cluster adjacent to Cartwright;
ii) Several cabins on Rock Lake, particularly in the Rock Lake Subdivision in Sec. 14-3-14W;



ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

Legend:

- ▲ Farmstead
- ▽ Vacant Farmstead
- ■ Rural Residential
  Seasonal Residential (S.R.)

LAND USE

R.M. OF ROBLIN

SCALE:
1"=2.75 Mi. (Approximate)

N

DATE: JAN. 1985

Map 3.1

iii) a nine hole golf course 2 miles west of Cartwright and the Kinsmen Park ½ mile north-east of Cartwright;
iv) assorted minor uses such as several gravel pits, nuisance grounds for each village, a "Ready-to-Move" Home Manufacturer on SE 12-2-15W, anhydrous ammonia sales on SE 15-1-13W and a private church and school on SE 12-2-15W.

In general none of these non-agricultural uses is any threat to agriculture at the present time. However, rural residential uses, manufacturing, schools and recreation uses sometimes take agricultural land out of production and can interfere with some agricultural practices.

b) Transportation

The R.M. is serviced by a fairly comprehensive system of Provincial and Municipal roads. The Provincial system consists of:

- Provincial Trunk Highway 3 (east-west) and 5 (north-south) which intersect at Cartwright; and
- Provincial road Nos. 442,541, 340 and a small portion of P.R. 253.

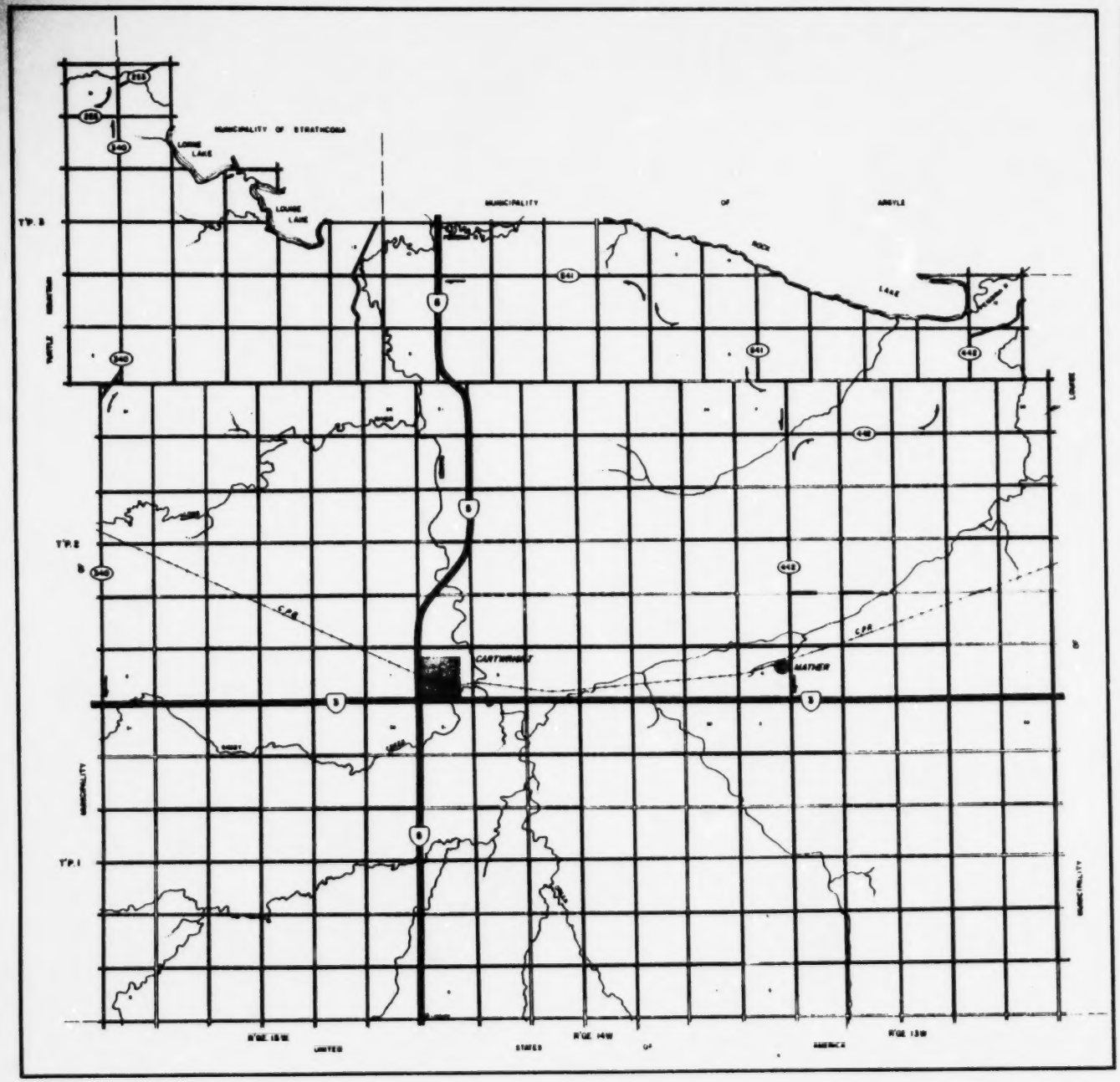
There are over 200 miles of all weather municipal roads providing good access to all parts of the municipality. In addition, there are about 40 miles of seasonal roads (i.e. good weather use only). (see Map 3.2)

Development and maintenance of this road system is costly. The taxpayers of the municipality should not be expected to pay for the construction of roads to service a non-farm or even a farm residence which the owner has chosen to build well off the existing system. In addition, maintenance of roads can be kept down by keeping buildings away from the road allowance and thus reducing snow drifting on the roads. This building setback can also promote greater visibility at intersection.

c) Land Use Trends

Chapter 2 on Population indicates that the population of the rural area is dropping. Chapter 5 on Agriculture indicates that the size of farms is increasing and the number of farms in decreasing. These trends suggest that there is no need to be concerned about increased population and where it's going to go.

However, there are trends in other areas which may also affect Roblin. In many municipalities there has been a "back to the land" trend where people want to live on 5 to 10 acres and do a little farming but generally make their living by working in a nearby town. If this trend does affect Roblin it will probably be minimal because there are simply not very many employment opportunities in the nearby towns. However, there has been little subdivision activity to suggest this type of trend. There has been 12 subdivisions since 1976 and almost all were agricultural or farmstead.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

Legend:

- Provincial Road (442)
- Provincial Trunk Highway (5)
- All-Weather Mun. Road
- Seasonal Mun. Road
- Incorporated Centre
- Unincorporated Centre

TRANSPORTATION

R.M. OF ROBLIN

SCALE: 1" = 2.75 Mi. (Approximate)

N

DATE: JAN. 1985

Map 3.2

Whatever development or redevelopment takes place should follow certain principals:

- good agricultural land should not be unnecessarily taken out of production;
- flood prone areas should be avoided;
- the public should not have to bear unreasonable costs for servicing private development; and
- non-agricultural development should not restrict agricultural activities.

Rock Lake has had little new development for several decades. This lake and the surrounding land contains great potential for recreation and wildlife. Development near the lake should not interfere with this potential.

Livestock operations have not come into any major conflict with the villages. However, there is always a potential for conflict between livestock and residential areas therefore livestock should be prohibited or restricted around Cartwright, Mather, the Rock lake subdivision and any other population concentration.

3.4 MATHER

Map No. 3.3 shows detailed land use in Mather. Most of the development is on the south side of the railway and centred on a block of commercial and industrial buildings on Second Street. Some of these buildings are vacant and the present "downtown" area consists of a post office, a service station, a seed cleaning operation, a grocery store and a community hall. Other services in the village include a skating rink, curling rink, two churches, an elevator and a school.

There is no community sewer and water system in Mather. Water comes from individual or shared wells. The quantity is adequate for anticipated demands but the quality varies. Sodium, Chloride and iron levels are sometimes excessive.

The soil conditions in Mather are suitable for individual sewage systems. However, most lots are too small to permit underground disposal systems so that holding tanks are required (see Regulation 85/81, Clean Environment Act). A community septic system may be a more convenient alternative to the pump-out systems. (Sewer and water information is from Environmental Management Division, Department of Consumer & Corporate Affairs and Environment).

None of the roads in Mather are paved and although Fourth Street, Fulford Street and Howard Street are shown on the map, they are not developed.

Mather uses a nuisance ground located ¼ mile north and about ½ mile west of the Village. This is located on about an acre of land and is not adequate for present demands. The R.M. and the Village of Cartwright are presently considering the use of an unused road allowance as new nuisance grounds to servce Cartwright and the R.M., including Mather.

There was one school in Mather which is part of Pembina Valley School Division #27 however this school was closed at the end of the 1984-85 school year. This was the only school, other than the Cartwright School, serving the District. Mount Prospect School (near Mather) was closed in the mid 1960's.

Mather is a Unincorporated Village District with a present population of 88. It is a minor service centre with no indications of significant growth in the future. Any new house construction can be accommodated without village expansion.

There has been no regulation of land use in Mather and, with no growth prospects, there would appear to be little need. However, Mather is an agricultural service centre and it may be necessary to designate certain areas for bulk fuel, fertilizer and chemical sales to protect the residents from the dangers inherent with these products.

3.5 ROCK LAKE RECREATION AREA

The major recreation use in the Roblin portion of Rock Lake is the Rock Lake Subdivision on the NE¼ of Sec. 13-3-14W. The land use in the Rock Lake Subdivision is shown on Map No. 3.4. This is the only major recreational development on the south side of Rock Lake. There are 36 cottages and a number of trailers in a trailer park at the west end of the subdivision. All lots on the lake side are developed but most lots on the inland side (Popular Street) are vacant. Public recreational areas include a sports field, public beach and dock. The owners of the trailer park also operate a small store.

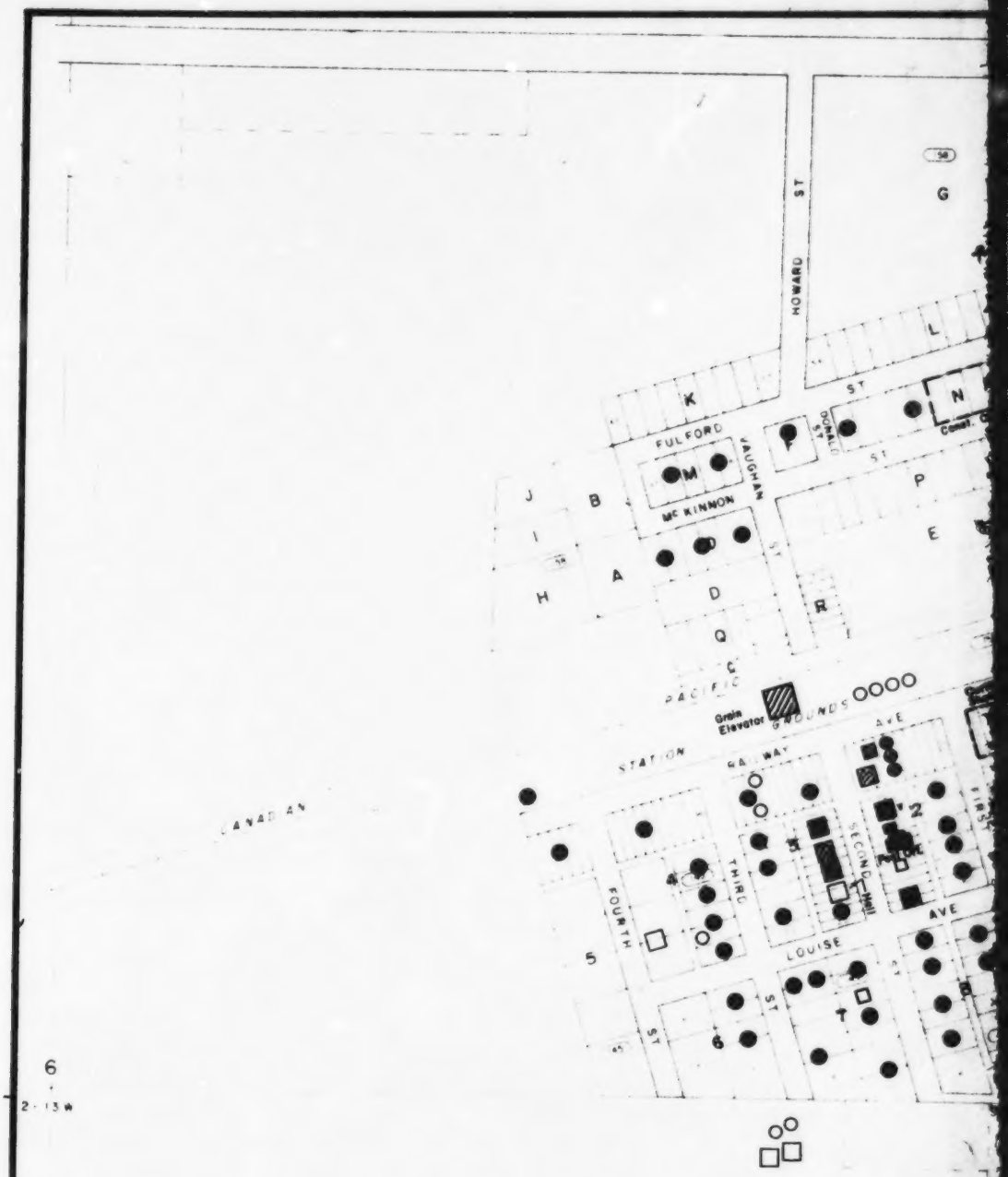
Private sewage systems in this subdivision are generally restricted to holding tanks due to the small size of the lots and the high groundwater level. There is a Provincial proposal, supported by the R.M. Council, to have the area around the lake designated a sensitive area which would restrict sewage systems to holding tanks only.

There is more room for new cottage development in the existing subdivision but there has been no development for a number of years. This is probably largely due to the perceived loss of recreational value in the lake. These Rock Lake recreational problems are discussed in Chapter 7 Natural Resources.

There are a few other cottages along the south shore of the lake but there is very limited access to the shore. The edge of the lake is heavily wooded and cut by a number of ravines which drain farmland to the south.

3.6 RECREATION AREAS & FACILITIES

Other than the Rock Lake Recreation area there is little recreation development in the R.M. There is a curling rink, arena and fairground in Cartwright. A 9 hole public golf course is located 2 miles west of Cartwright on Section 2-2-15W and the Kinsmen Park, including playground equipment, is ½ mile northwest of Cartwright on the Badger Creek.


HOWARD ST
FULFORD
McKINNON
VAUGHAN
DONALD ST
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Q
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C
PACIFIC
Grain Elevator
GROUNDS
STATION
AVE
SECOND
THIRD
FOURTH
LOUISE
1
2
3
4
5
6
7
CANADIAN
6
2-13

ROBLIN - CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

EXISTING LAND USE

LEGEND:

- Residential
- Commercial (v - Vacant)
- Industrial (v - Vacant)
- Church
- School
- Public Building
- Recreational
- Farm Related or Accessory Building

MATHER

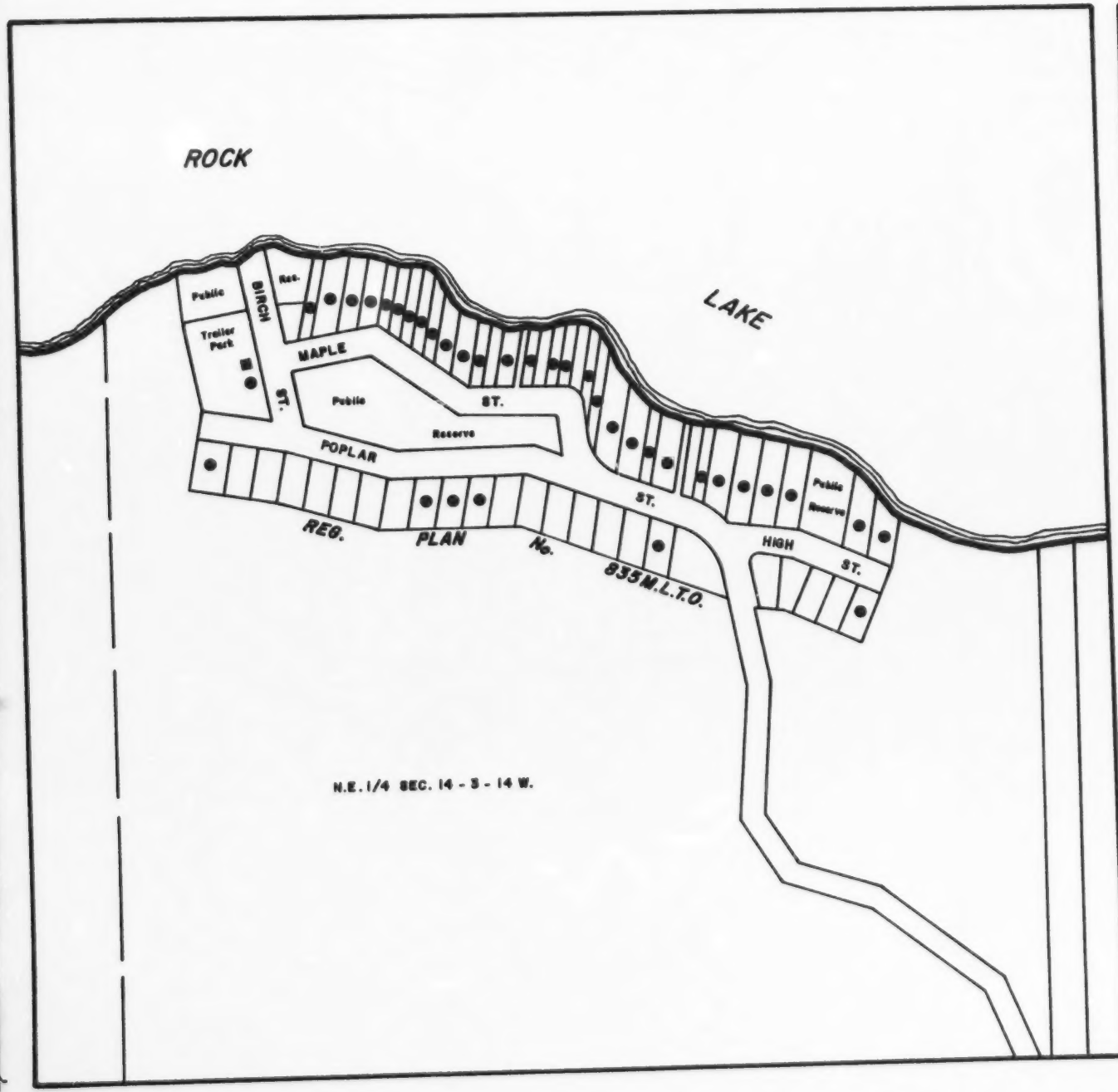
100 0 50 100
SCALE IN METERS
1: 5000

N

DATE: JAN. 1985

DRAWING Nº: 145 - 70 - 100 A

Map 3.3



ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

Legend:

- Residential
- Commercial

LAND USE

R.M. OF ROBLIN
ROCK LAKE SUBDIVISION

SCALE: 1" = 400' (Approximate)

N

DATE: JAN. 1985

Map 3.4

3.7 SCHOOLS

The R.M. is divided into Turtle Mountain School Division #44, in the west half and Pembina Valley School Division #27 in the east. The only public school is located in Cartwright (K to 12) and is discussed in detail in the Cartwright portion of this report. There is also a private school associated with a church on the south half of Section 12-2-15W.

3.8 ROBLIN ISSUES

1. Although there is little development around Rock Lake at the present time the Councils would like to see this resource developed as a major recreation area for the region. However, any such development would require a careful balance between recreation, wildlife, residential and surrounding agricultural uses.

2. Agriculture remains the principal industry in the R.M. and almost all economic activity in the District is dependant on agriculture.

3. There are no obvious conflicts between residential uses and livestock operations but, since livestock is a significant agricultural activity in the R.M., there is still a need to ensure that these uses are separated.

4. There is some non-farm residential development. These and future non-farm residences should not interfere with local agricultural production.

5. There is a need for a new nuisance ground for Mather and the R.M. This nuisance ground could be operated with the Village of Cartwright.

6. There is some general concern about runoff originating in North Dakota and the R.M.'s of Turtle Mountain and Louise and flowing north to Rock Lake. This has occasionally resulted in some flooding.

7. Development along Municipal and Provincial roads should be set back to preserve safety and reduce maintenance costs due to snow drifting.

8. Land use controls in Mather should protect residents from the development of potentially hazardous agri-commercial services, such as fuel or chemical sales, and promote orderly development.

9. An efficient municipal road system should be maintained and the taxpayers should not have to bear the cost of unreasonable expansion to serve a single resident.

Chapter 4 - URBAN LAND USE

4.1 INTRODUCTION

This Chapter describes the patterns of development and major planning issues in the Village of Cartwright but not in the U.V.D. of Mather. Mather is discussed in Chapter 3, Rural.

Cartwright is an incorporated village located in Section 6, Township 2, Range 14 WPM. It is at the north east corner of the junction of PTH #5 and PTH #3. About half of the 360 acres within the village boundaries is developed.

4.2 HISTORICAL BACKGROUND

In 1879 Cartwright was originally located about 2 miles further north at a point where the Boundary Commission Trail crossed the Badger Creek. It developed as a service and transportation centre for the growing agricultural activity in the area and as home for a North West Mounted Police detachment.

In 1885 the C.P.R. line passed two miles south of the town and, as with many prairie towns of that time, the residents realized that they had to be on the rail line to survive. Between 1885 and 1890 the entire village was moved to its present location.

Cartwright grew principally as an agricultural service centre. There was some manufacturing in the early years, such as stock medicine, awnings, a planing mill, lightning rods, cheese and a creamery, but these no longer exist. The railway set the climate for this early manufacturing but, over the years the factories either closed or moved on to larger centres. In the early 1960's there was some hope that improving P.T.H. #3 may attract more business, but this has not happened.

4.3 DEVELOPMENT TRENDS

a) Land Use

Detailed land use in Cartwright is shown on Map No. 4.1. Generally, the commercial, residential and industrial uses are fairly well separated thus avoiding major land use conflicts.

Since the population has dropped considerably over the past 30 years, and is only now beginning to increase, there has been very little new development in Cartwright. The only new construction which has taken place in recent years is residential and most of that has been infilling in established areas. A 14 lot residential subdivision by the Village in 1977, along Marchant Avenue in the south part of Cartwright has had some new residential construction. In fact, there has been an average of only one subdivision per year since 1976 and the Village has been the major creator of residential lots.

Commercial activity is concentrated in the "downtown" area, along Broadway, Curwen and North Railway. There is ample room within this area for new commercial development but there is little demand. In spite of the location on two major highways serving this area, there are no highway oriented commercial activities (motel, drive-in restaurant or service station).

Industrial activity is principally located between the C.P.R. line and North Railway and consists of agricultural service industries (elevators and fuel storage). Other industri al uses are the public works yard on Wallace Street and the implement storage and repair on Gimby Street.

There is room for new industries to locate between the C.P.R. line and North Railway. Since there is no current or foreseeable demand for industrial land there is probably no need to designate a specifically industrial area other than this land along the railway. However, since this is an agricultural service centre there may be a demand for storage of fuel or chemicals related to agriculture. These may not be suitable so close to residential and commercial uses.

Residential activity has developed in two main neighbourhoods. The older neighbourhood is north of the railway and surrounds the "downtown" area. The area south of the railway is the newer development although residential infilling has always taken place in both areas. The only new residential subdivision is Plan 1388 (later revised by Plan 2159) on the south side of Marchant Avenue. Most of the lots in this subdivision are still owned by the Village and are undeveloped.

b) Land Use Trends

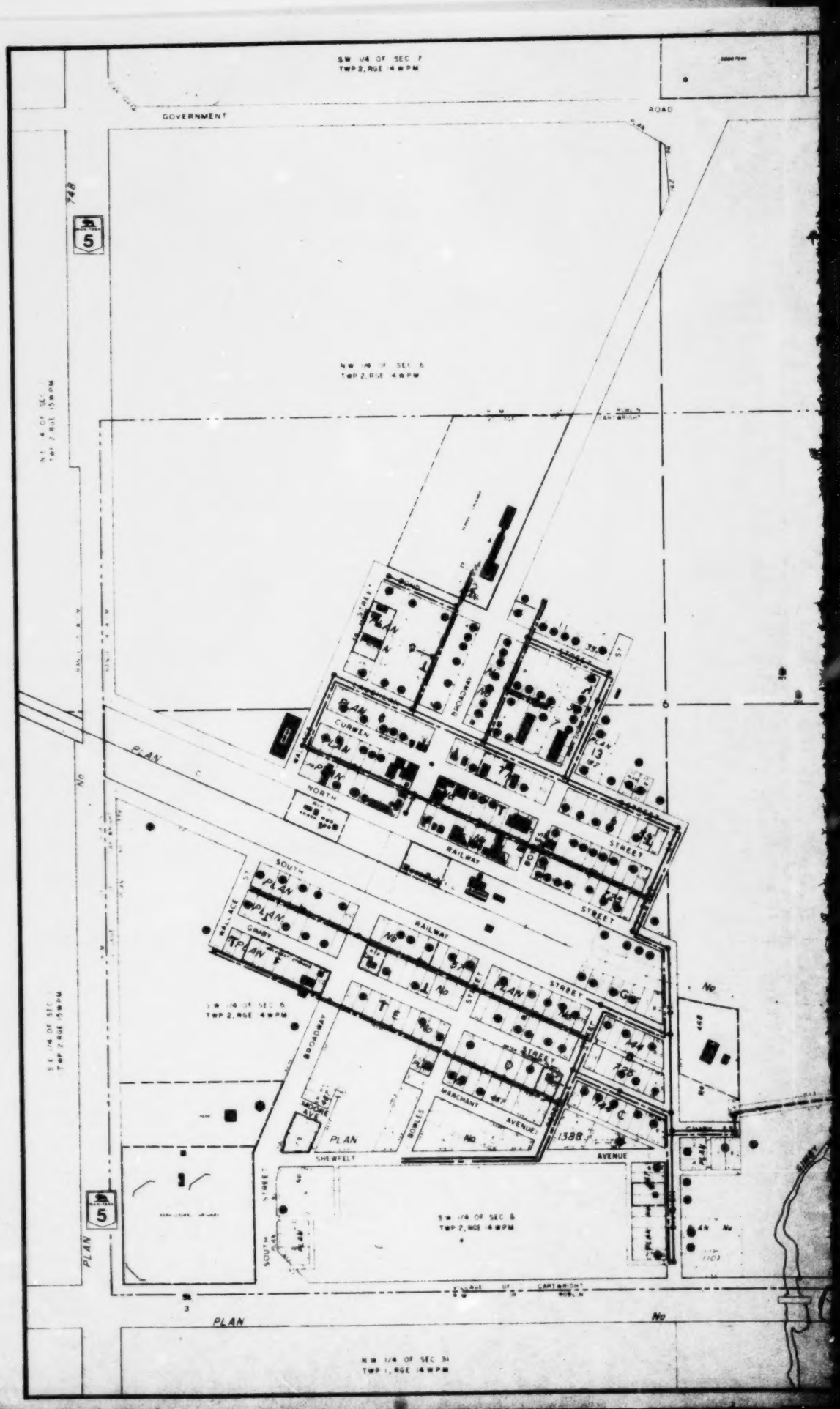
In the absence of any appreciable growth there are no obvious trends. There is no new commercial or industrial development and there is adequate room for expansion or infill in the established areas.

Most new residential development is taking place in the south part of the village and this area holds the greatest potential for additional housing development.

c) Land Use Conflict Areas

There are no major conflict areas although there are a few minor nuisances caused by industrial uses in or beside residential areas. Examples would be the public works yard on Wallace and the implement storage and repair yard on Gimby. Generally, since these residential and industrial uses developed at the same time they have learned to live together.

With such a low growth rate it is unlikely that any major conflicts will develop with the possible exception of certain agri-commercial uses. Most fertilizer and chemical storage facilities are not suitable near residential areas. Some, such as anhydrous ammonia, should not be located anywhere in the village.


SW 1/4 OF SEC 7
TWP 2, RGE 4 W PM
GOVERNMENT
ROAD
748
5
NW 1/4 OF SEC 6
TWP 2, RGE 4 W PM
NE 1/4 OF SEC
TWP 2 RGE 5 W PM
PLAN
CURVED
BROADWAY
NORTH
RAILWAY
STREET
SOUTH
WALLACE
GIMBY
SW 1/4 OF SEC 6
TWP 2, RGE 4 W PM
SE 1/4 OF SEC
TWP 2 RGE 5 W PM
MERCHANT
AVENUE
1388
SHEWFELT
SOUTH
SW 1/4 OF SEC 6
TWP 2, RGE 4 W PM
CARTWRIGHT
NW 1/4 OF SEC 31
TWP 1, RGE 4 W PM

ROBLIN - CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

EXISTING LAND USE

LEGEND

- Single family dwelling
- Mobile home
- Commercial or building as described
- Commercial with dwelling(s)
- Bulk oil storage tanks
- School
- Church
- Monument
- RES Farm dwelling
- Farm related building
- Limits of the land use area
- Sanitary sewer and manhole
- Sanitary sewer force main
- Watermain

VILLAGE OF CARTWRIGHT

SCALE 300 150 0 300 600 IN FEET

N

DATE: NOV. 1984

DRAWING NO: 59 - 70 - 108 A

Map 4.1

4.4 SERVICING

a) Sewer

All of the developed portion of the Village is served by a sewage disposal system (see Map 4.1) which was installed in 1962. This system drains into a reservoir just south of the hospital and is then pumped to a two cell lagoon on the east side of Gimby Creek, outside the village boundaries. The entire system is now 23 years old and some of the equipment may have to be replaced in the near future.

b) Water

Cartwright is served by a Manitoba Water Supply Board water plant which draws water from a well located on Gimby Street at Rogers Street. This water system was installed in 1962. The plant is presently operating at about 50% or its rated capacity and indications are that the groundwater system is capable of accommodating growth. This water system currently serves all of the developed portions of the village.

The Environmental Management Division indicated that Zeolite softening of the well water tends to increase the sodium levels in the finished water, which sometimes exceeds the drinking water standards marginally. Sulphates in the well water exceed the drinking water standards marginally, and may be of concern to some consumers.

c) Roads

Roads carrying the most traffic are paved and in fairly good condition. As residential development occurs along Wallace, West Bond, South Railway, Gimby and Marchant, these streets will need to be paved.

Several roads are "grant-in-aid" streets which means that the Provincial Department of Highways pays for 50% of the maintenance and construction. These "grant-in-aids" streets are:

1. Broadway between Curwen and the school;
2. Wallace between Laughlan and Bond;
3. Laughlan between Wallace and Bowles;
4. Curwen between Broadway and Bowles;
5. Bowles between North Railway and Laughlan;
6. North Railway between P.T.H. #5 and Broadway and between Bowles and Division;
7. South Railway between Broadway and Division;
8. Gimby between Broadway and Division; and
9. Division between P.T.H. #3 and North Railway.

The Department of Highways maintains P.T.H. #5 and P.T.H. #3 and in order to protect the safety of these highways, an access can be built only by permit from Highways and building within the following limits requires a permit from Highways:

1. Within 125 feet of the edge of the road allowance on both highways;
2. Within 500 feet of the centre of the intersection of PTH #5 and PTH #3; and
3. Within 350 feet of the centre of the intersection of South Street and PTH #3.

The Village has a fairly good sidewalk system, especially in the downtown area. However, some of these sidewalks are in need of repair and the system should be expanded into the residential neighbourhood south of the C.P.R. Improvement or expansion of sidewalks could best serve uses that benefit larger numbers of people or people who are more inclined to walk, including the schools, a new senior citizens facility and the hospital.

d) Nuisance Grounds

The village shares a nuisance grounds with the R.M. This is located about a mile north of the village in Section 7-2-14W on private land. They pay an annual rent for this land but hold no long term lease. They have been considering developing a new nuisance grounds on an unused road allowance about 3 miles east of the village, to be used by Cartwright, Roblin and Mather.

4.5 HOUSING

a) Housing Prices

House prices are low in Cartwright compared to larger neighbouring towns. The average selling price of houses between 1980 and 1984 was slightly less than $10,000 and all sales were less than $20,000. However, there were very few sales and all sales were for older homes. Vacant land prices ranged for $200 to $2,000 for residential lots.

The low cost of housing tends to discourage new house construction since the cost of a new house will be far more than its value in this market. Therefore, there is no speculative residential construction and the only new houses are owner built or government built.

b) Lots and Serviced Land

Most lots in town are 50 feet wide and the majority of houses occupy 1½ or 2 lots. Within the developed areas there is room for infilling on vacant parcels or vacant portions of occupied parcels. There is also room for construction in the new subdivision along Marchant Avenue.

There are approximately 25 vacant residential lots, however, because of the practice of using double lots in Cartwright, there is room for only about 12 new houses on serviced lots. At present growth rates this is enough to accommodate new house construction for about the next 5 years. After that new residential land would have to be serviced.

c) Special Housing

The principal types of special housing which will probably be needed over the next 10 years will be additional senior citizens apartments and possibly a nursing home. This would allow local residents to stay in the area, close to their families rather than having to more to Killarney or some other centre.

Any new senior citizens apartments should be located north of the railway and within easy walking distance of the shopping, recreation and social facilities of Cartwright. There should also be a good sidewalk system connecting these facilities to seniors' apartments.

However, the Manitoba Department of Housing, after a July, 1984 survey, concluded that there was not sufficient demand to warrant construction of additional elderly housing. Six people had indicated an immediate need,however, this policy is to recommend only one unit for every three people who indicate an immediate (within a year) need.

Any nursing home would probably be best located adjacent to or attached to the hospital.

4.6 RECREATION AREAS AND FACILITIES

Existing outdoor recreation parks and facilities are:

- Agricultural Grounds - includes sports fields
- Centennial Park - open space
- Kinsmen Park - includes playground equipment and a wading pool
- Cartwright Golf Course
- School grounds

Indoor recreation facilities are:

- skating rink - built in 1959
- curling rink - built in 1949
- Centennial Auditorium - built in 1967

There is little demand for additional major recreation facilities. Council efforts should be directed to maintaining and upgrading the existing facilities. If any new facilities are built Council should try to direct these to a central, well designed recreational location having adequate space and parking.

Although there is little need for additional open space in Cartwright, certain lands are low and subject to flooding and should not be developed. This flood prone area includes Lots 15, 2 and 3, of Plan 1388 and an existing drainage ditch between Shewfelt Avenue and P.T.H. #3. This area should be reserved as open space.

4.7 INSTITUTIONAL FACILITIES

a) School

The Cartwright School is part of Turtle Mountain School Division #44. It is a Kindergarten to Grade 12 facility serving Cartwright and the R.M. of Roblin. The western edge of this school district is located between Mather and Cartwright. Mather is in the Pembina Valley School Division #27.

The oldest part of the existing Cartwright School was built in 1950. The collegiate was added in 1962, a gymnasium in 1972 and a further addition in 1978. There are no plans for another school and the existing space seems adequate for anticipated needs.

The school population has been dropping, at least since 1970. The total number of students at September registration was as follows:

1970 - 237
1976 - 230
1981 - 150
1984 - 140 (Source: Cartwright Collegiate)

b) Hospital

Cartwright has a 10 bed hospital, 8 of which are used for extended care and 2 for acute care. The nursing staff is local however the only doctor comes from Killarney 3 days per week. A Public Health Nurse from Crystal City runs a number of regular clinics in the hospital. The community has a volunteer ambulance service.

There appears to be no demand for additional acute care beds but there is a need for a nursing/personal care facility. The manager of the Badger Creek Lodge, the senior citizens apartments, agreed that a personal case home would allow older people to stay in the community.

4.8 CARTWRIGHT ISSUES

1. Growth is not an issue in Cartwright. Existing serviced land is adequate to meet anticipated residential demands for 5 years. The principal emphasis should be on maintaining and improving existing services.

2. Although there is no obvious residential/commercial conflict, the central commercial area should be clearly defined in the plan and in the zoning by-law and commercial activity should be confined to that area.

3. There are a number of vacant lots suitable for residential infill. Until this infill takes place the use of those lots should be regulated to ensure they do not conflict with the surrounding neighbourhood.

4. Efforts should be made to identify and preserve historic buildings in Cartwright, such as the Anglican Church.

5. Dangerous chemicals, such as for agricultural purposes, should not be stored or distributed in or immediately adjacent to the village.

6. One site should be identified for construction of any further recreational facilities and that site should be designed to ensure adequate parking.

7. The plan and the zoning by-law should require a buffer between industrial and agri-commercial uses and adjacent residential development.

8. The Village and the R.M. should acquire a nuisance ground.

Chapter 5 - NATURAL RESOURCES

Note: The Resource Allocation Working Group of the Department of Natural Resources has produced a comprehensive evaluation of resources in this Disitrict entitled Planning Report on Natural Resources - Roblin-Cartwright Planning District - February, 1985. (Technical Report 85-4). The information in this Chapter is taken from that report.

5.1 INTRODUCTION

Although the principal industry of the Roblin-Cartwright Planning District is agriculture, there is a significant potential for development of wildlife and recreation related industries offered by Rock Lake and the surrounding land, lakes and tributaries. This Chapter discusses the extent of fisheries, wildlife, water and other natural resources of the District. It identifies the need to protect these resources and to develop their potential for the long term benefit of the District and the region.

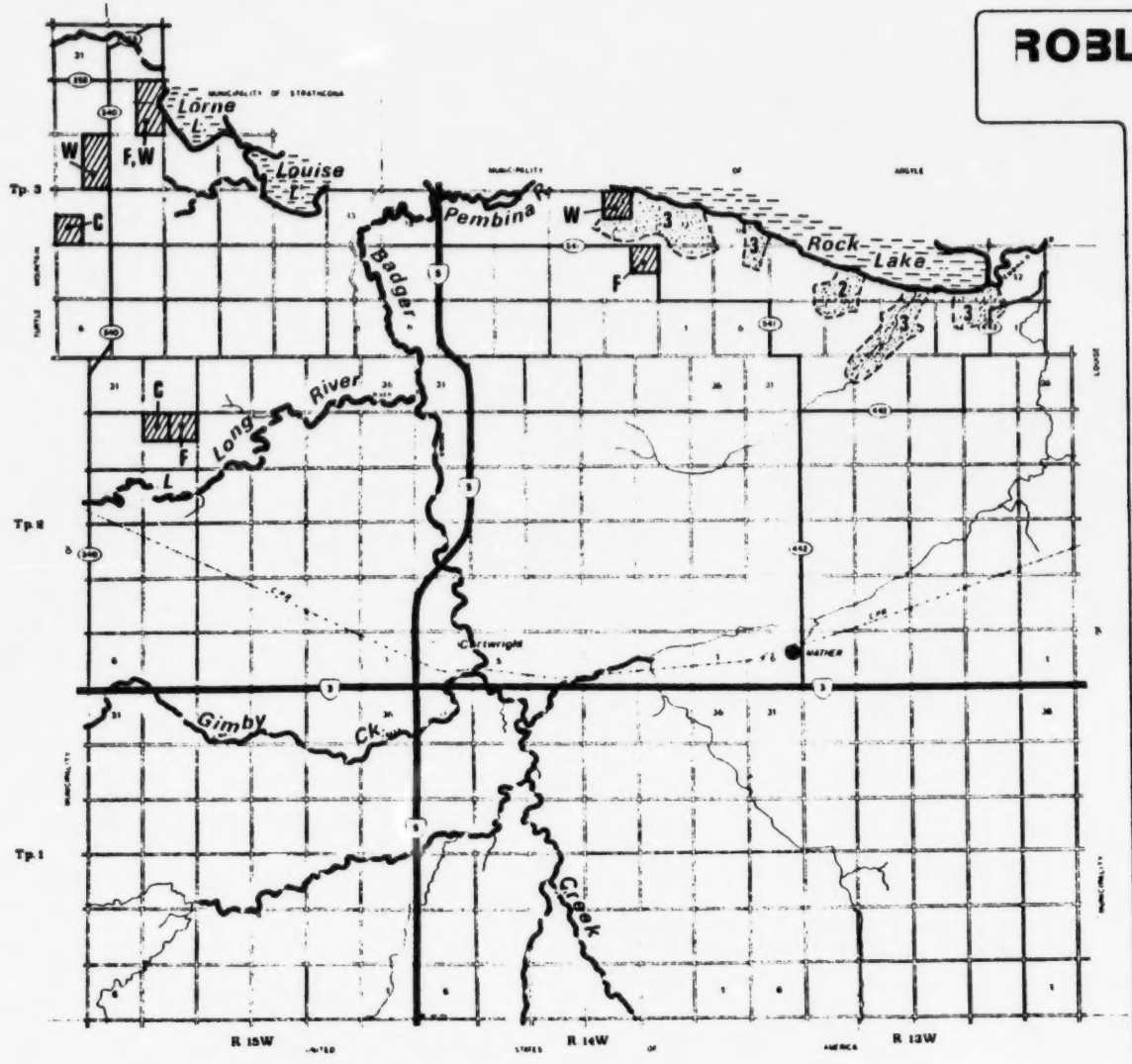
5.2 FISHERY RESOURCES

Environmental constraints presently limit continuous game fish production in the Planning District. The lakes are shallow and eutrophic (nutrient rich) while many streams and tributaries are intermittent (Map 5.1). Most waters are subject to both winter and summer fish kills of varying severity.

Fish kills usually result from critically low dissolved-oxygen levels caused by decomposition of organic matter (usually in the form of algae and aquatic weeds). In winter, this is increased by prolonged periods of ice and snow cover which prevent surface aeration and limit oxygen production from photosynthesis. Shallow water normally does not have sufficient oxygen storage capacity to meet oxygen demand under these severe conditions.

Rock Lake

Rock Lake is the most significant fishery in the Planning District. Under high water conditions Rock Lake has a surface area of approximately 1,720 hectares (4,250 acres), a maximum depth of approximately 3.8 metres (12.5 feet) and a volume of about 5.2 and 10^7 m^3 (42,500 acre feet). The Pembina River flows through Rock Lake.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

Fishery & Outdoor Recreation Sites, Crown Lands & Crown Land Commitments (June, 1984).

- Fishery & Outdoor Recreation Sites
- Other Fishery Sites
- Land Capability for Outdoor Recreation (Canada Land Inventory) Class 2 & 3 only
- Crown Land Commitments

Agriculture

F - forage lease

C - cash rental lease

Order-in-Council

W - Wildlife Management Area

Map 5.1

BACKGROUND STUDY

A number of Rock Lake reports have been written dealing with biology[2], water storage[3], water level regulation[1,4], algae and weed control[1,5], fish winterkill prevention[1,6], extent and value of the sport fishery and water quality. Water quality relative to sediment nutrient levels has been researched by personnel from the Freshwater Institute in Winnipeg.

Over the last forty years, fish winterkill or fish jams of varying severity have occurred in about 45% of the winters. Repeated winterkills prevent the establishment of large sport species populations. When angling is poor, angler activity and local tourism declines.

The nutrient status of Rock Lake could be improved by reducing phosphorous sources or by increasing the areal loading (increase the outflow signficantly without changing surface area to any great degree). The latter alternative is impractical since present flushing potential is limited, water importation would be costly and extensive water elevations would flood private property. Reducing phosphorous input may be difficult as some sources are likely diffuse, eg. , run-off, groundwater and precipitation. Internal nutrient recycling from the bottom sediment can be expected especially under anerobic periods typically found when winterkill develops. However, obvious nutrient point sources should be controlled. Nutrient inactivation is a costly lake restorative procedure but would reduce nutrient cycling and improve water quality. This should only be attempted as part of a total watershed protection program.

The shallow depth of Rock Lake means less initial winter dissolved-oxygen storage. The rate of winter dissolved-oxygen depletion in stable non-stratified lakes is fairly constant so the time to development of winterkill conditions relates largely to the mean depth of the lake and its related dissolved oxygen storage volume[7]. On this basis, water level increases resulting in a significant increase in mean lake depth should decrease the frequency and severity of Rock Lake fish winterkills. Slight water level increases, without substantial dyking of valley flats, may actually reduce the mean depth of Rock Lake, flood lowlands resulting in more nutrient leaching to the water, further reduce water quality and increase weed production.

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[1]Rock Lake Interdisciplinary Committee. 1976. Interdisciplinary study of measures to enhance the recreational potential of Rock Lake. Manitoba Water Resources Division. 41p. plus appendices.

[2]Arnason, I.G. 1956. A biological survey of Rock Lake, July. 1956. Man. Fisheries Branch Report. 27p.

[3]Stone, D. 1963. Fisheries aspects of the Pembina Basin Storage Study. Dept. of Mines, Natural Resources, Fisheries Branch manuscript report. 15p.

[4]Rock Lake Advisory Committee. 1967. Proposed Rock Lake Improvements. 11p.

[5]Manitoba Water Resources Planning Division. 1972. Rock Lake experimental algae control program. Water Quality Section. 17p.

[6]Adams, H.J. Rock Lake aeration project report. Manitoba Water Resources Planning Division. 14p.

[7]Barica, Jan and John A. Mathias. 1979. Oxygen depletion and winterkill risk in small prairie lakes under extended ice cover. J. Fish. Res. Board Can. 36(8). 980-986.

Costly aeration systems could be designed and installed in Rock Lake to prevent winterkills. This would have a limited positive impact on the algae problem. The previous unsuccessful aeration attempt[6] used only a small fraction of the air flow actually required to prevent winterkill.

From 1966 to 1970, 40 tons of copper sulphate were applied to Rock Lake. Algae growth was fairly well contained dur ing the period of treatment and this made the area more attractive to various resource users. Nutrients not used by the algae may have produced more luxuriant aquatic weed growths as fish winterkills still occurred in three of the five years of treatment.

The Rock Lake fishery is dominated by northern pike, perch, suckers and bullheads. Walleye are less tolerant of low dissolved oxygen levels, but have been stocked on three occasions since 1979. Angling success is erratic and somewhat dependent on the size of upstream fish runs from the lower Pembina and Red Rivers. The frequency and severity of recent winterkills is another factor, although nine springs along the north shore provide some freshwater for fish survival and winterkills are rarely complete. Artificial stocking of walleye, bass, perch and pike date back to 1924. Restocking is normally heaviest in those years following a winterkill.

Characteristics of the Rock Lake sport fishery are adequately described in another report[1]. This fishery is highly valued by local residents, and at times, a large percentage of the angling public is American.

Lorne and Louise Lakes

Lorne and Louise Lakes are shallow lakes that consistently winterkill and therefore lack a permanent game fish population. Both lakes support a very heavy growth of aquatic vegetation and, as such, are important spawning areas for pike.

Small springs are sometimes active at the southeast corner of Lorne Lake and the west shore of Louise Lake. Young-of-the-year pike, suckers and bullheads commonly congregate at the spring areas in early winter as dissolved oxygen levels in the water decline. Some pike have been salvaged from these springs and taken to lakes that are less likely to winterkill.

A small unnamed tributary enters Louise Lake at its southwest corner. A large number of pike and suckers occasionally have been reported spawning in this stream up to four miles above Louise Lake.

Badger Creek

In high flow years, spawning pike and suckers from Rock Lake are able to proceed up Badger Creek as far as Rock Lake in North Dakota. Some adult pike, but especially their progeny, occasionally become stranded in this North Dakota lake as water levels recede.

Flows at the North Dakota-Manitoba border often decline quickly following the spring freshet. However, springs along Badger Creek in Manitoba usually help to maintain varying flows into the late fall.

A variable habitat along Badger Creek provides spawning potential for walleye, pike. bullheads and suckers while adequate flows in most years allow time for these species to return to Rock Lake. Other small fish species (sticklebacks, darters and fathead minnows) also occur in Badger Creek. They provide forage for pike and walleye.

Other Major Tributaries

The quantities of fish frequenting Rock Lake tributaries vary with the timing and volume of spring flows and the number of fish surviving in Rock Lake. In some years fish runs are non-existent. Most spawners return to Rock Lake shortly after spawning, but the tributaries serve as rearing areas for the newly hatched fry and fingerlings.

Gimby Creek joins Badger Creek near Cartwright and is the major tributary supporting sporadic runs of spawning fish from Badger Creek. Some of the other tributaries support lesser runs in some years. Gimby Creek is scattered with rock over much of its length and some deeper holes, up to about eight feet deep, occasionally overwinter suckers and bullheads. Pike and suckers are known to move up Gimby Creek at least six lineal miles west of No. 28 Highway.

A portion of Long River, within the Planning District, lies in a deep ravine that demonstrates some spring activity. Near the junction of Long River and Badger Creek, substrate are suitable for walleye spawning. In recent years, walleye have rarely been noted in this area but pike and sucker runs occur annually if Rock Lake winterkills have not been severe.

Due to steep gradients and intermittent flows, most tributaries to the south shore of Rock Lake have limited spawning potential. However, nutrient loading activity in this area is a concern because of its close proximity to Rock Lake and the indirect adverse impact of nutrient enrichment on water quality and fish populations. The same is true for an unnamed tributary stretching from west of Mather to Cypress Creek. Nutrient loading in this area can impact Pembina River waters outside of the Planning District.

5.3 FORESTRY RESOURCES

The Roblin-Cartwright Planning District is within the Aspen Parkland Section, Forest Management Unit 04 as defined in the Manitoba forest inventory classification system, 1980. Forest inventory on the area was completed in 1982. Both Crown land and private land forest inventory information is available and should be of benefit to landowners in the area.

As the area is in close proximity to popul ation centres landowners with forested land on their holdings might consider growing trees as a crop, for example, fuel wood. This is particularly true for land unsuitable for other agricultural purposes but still capable of supporting tree growth.

While trees and forests have value as a renewable cash crop their presence is valuable in other ways. These include control of precipitation run-off and retarding snow melt to lessen flood risk, erosion control, both water and wind, a habitat for wildlife, and recreation opportunities for people. Furthermore, forest harvesting operations can be done in a manner that will enhance all forest values. However, it is essential that fire be kept out and any utilization or disposal of elm trees is further subject to The Dutch Elm Disease Act and Regulations.

5.4 OUTDOOR RECREATION

The highest capability for outdoor recreation in the Roblin-Cartwright Planning District is centred on the shorelands of Lorne, Louise and Rock Lakes which form part of the Pembina River valley (Map 5.1). These shorelands are classified by the Canada Land Inventory for Outdoor Recreation as having a high to moderate capability - Class 2 to 5, for a wide variety of water-oriented activities - bathing, camping, cottaging, angling, boating, etc. These lakes, and particularly Rock Lake, are an important regional resource for outdoor recreation, and ready access has resulted in a high level of development and use. Water quality is a limiting factor, however. The Rock Lake area has archeological significance of a provincial scale.

The uplands of the district are interesting and provide some opportunities for more extensive types of recreation activities. The pothole-wetland environments are important to outdoor recreation activities relating to nature interpretation, bird watching, recreational hunting and travelling and viewing.

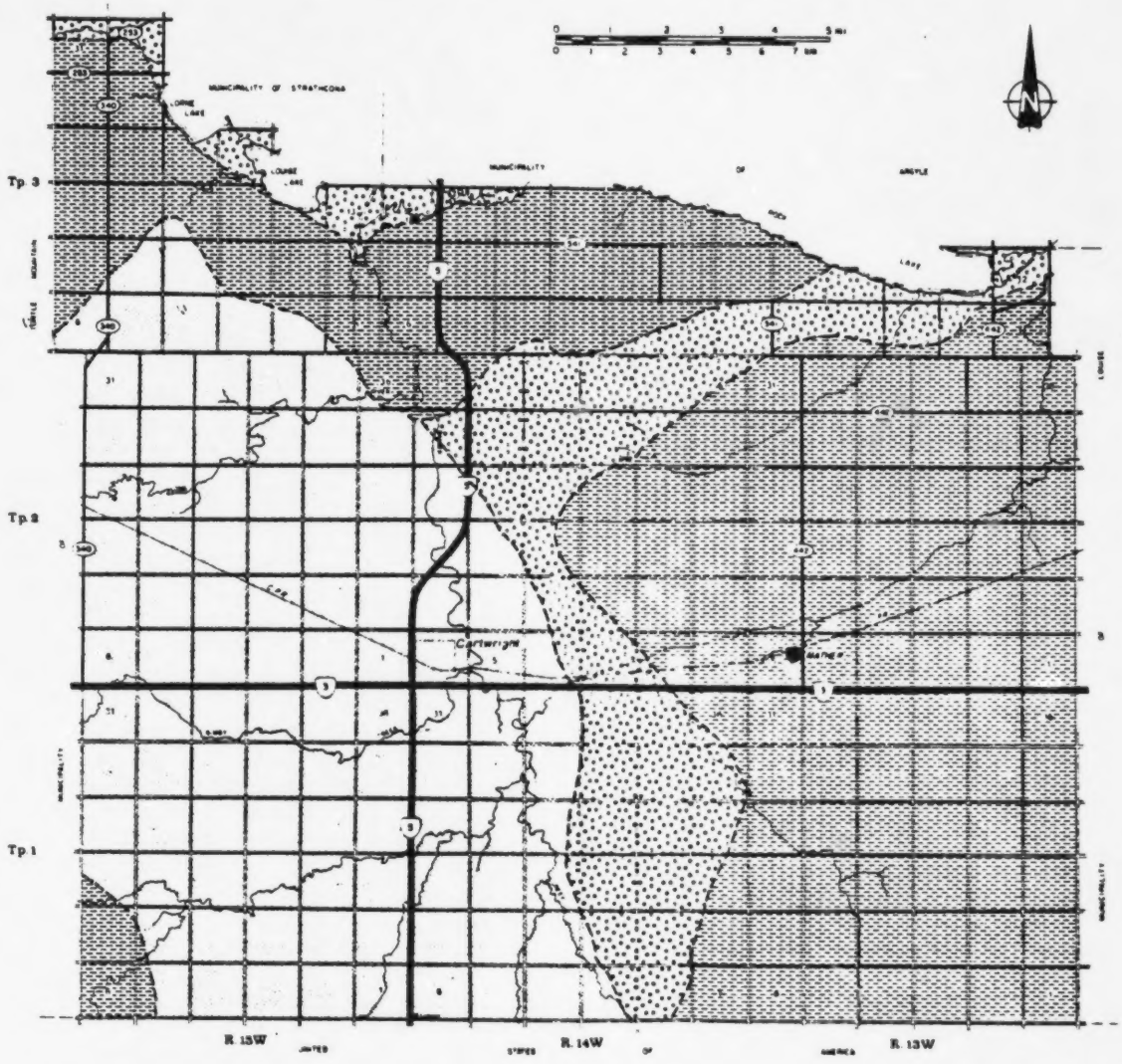
5.5 WATER RESOURCES: GROUNDWATER

The groundwater supply in the District is adequate for present requirements and some new development. In most of the district aquifer yield is adequate for domestic farm requirements. Some fairly extensive aquifers suitable for municipal and moderate industrial requirements exist in the western part of the District.

Three kinds of aquifers can be discerned in the District: extensive sand and gravel, lenses of sand and gravel and fractures shale (Map 5.2).

Water quality in the District ranges from very poor to good. The total dissolved solids concentration ranges from less then 1000 mg/L to more than 3000 mg/L. High hardness and high sulphate and iron concentration are fairly common.

In several areas sand and gravel or the shale bedrock are at or near surface. Because in these areas aquifers could be infiltrated by pollutants, they are classified as groundwater pollution hazard areas (Map 5.3).



EXTENSIVE SAND AND GRAVEL
THE AQUIFERS ARE ALMOST CONTINUOUS THROUGHT THE INDICATED AREA. THE DEPTH TO THE AQUIFERS RANGERS FROM LESS THAN 10m (33FT.) TO 60m (200FT.). WELL YIELD GENERALLY IS AROUND 1.0 L/S (13 I.G.P.M.) HIGH CAPACITY WELLS COULD YIELD MORE THAN 20.0L/S (260 I.G.P.M.) AT SOME LOCATIONS. WATER QUALITY RANGES FROM FAIR TO VERY POOR; HIGH SULPHATE CONCENTRATION AND VERY HIGH HARDNESS ARE COMMON.

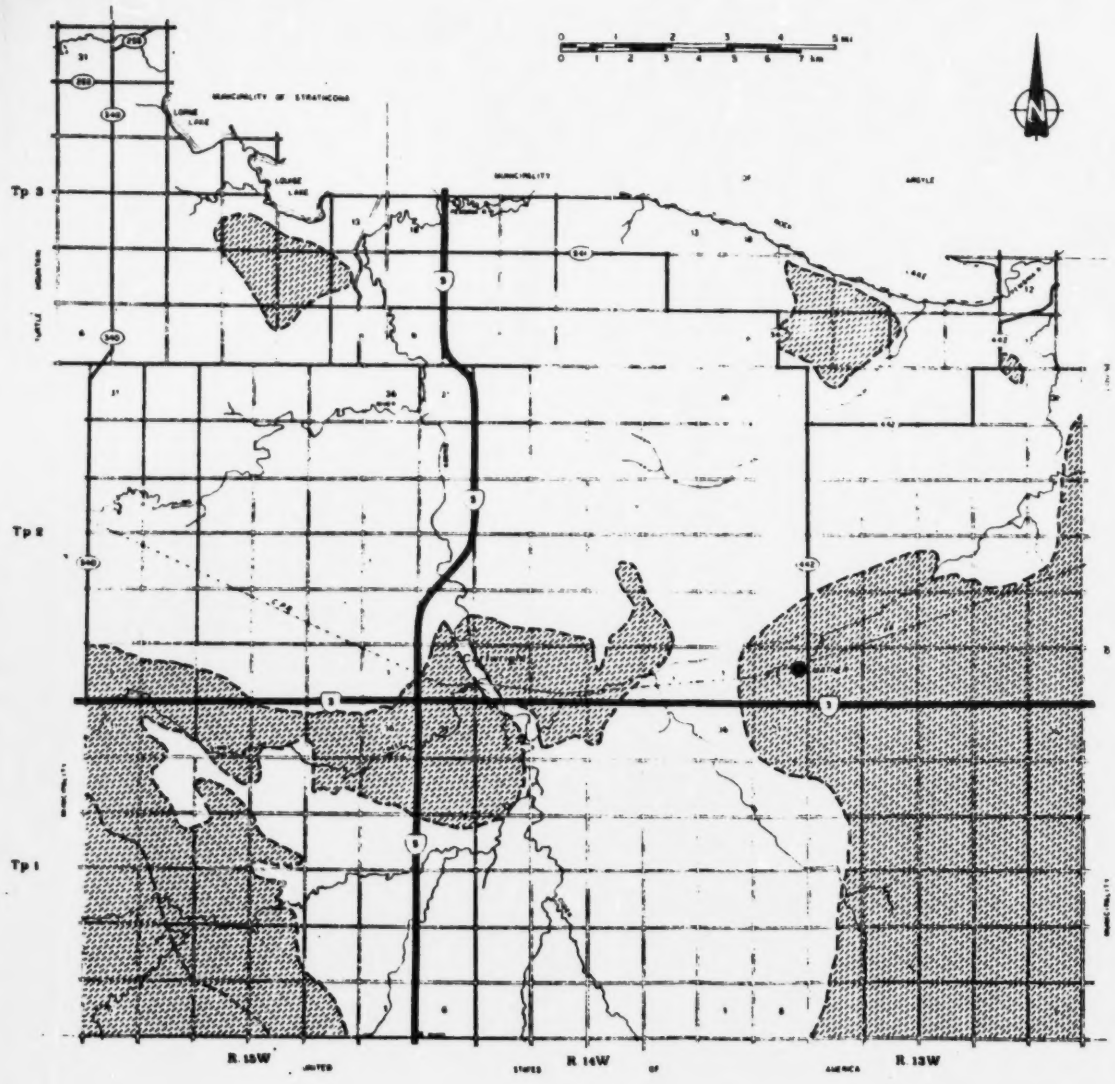
LENSES OF SAND AND GRAVEL
THE AQUIFERS ARE ISOLATED SCATTERED LENSES OF SAND AND GRAVEL WITHIN GLACIAL TILL. WELL YIELD GENERALLY LESS THAN 1.0 L/S (13 I.G.P.M). WATER QUALITY ABOUT THE SAME AS IN THE EXTENSIVE SAND AND GRAVEL AQUIFERS. THESE AQUIFERS MAY ALSO OCCUR ABOVE THE BEDROCK IN THE SHALE AQUIFER AREAS.

SHALE
THE AQUIFERS ARE FORMED BY FRACTURED ZONES IN THE SHALE BEDROCK. DEPTH TO THE AQUIFERS RANGES FROM LESS THAN 10m (33 FT.) TO MORE THAN 60m (200 FT.). WELL YIELD USUALLY LESS THAN 0.5 L/S (6 I.G.P.M) BUT AT SOME LOCATIONS UP TO 2.0 L/S (26 I.G.P.M). WATER QUALITY GENERALLY FAIR TO POOR.

ROBLIN-CARTWRIGHT PLANNING DISTRICT

Map 5.2
BACKGROUND STUDY

DRAWN S.S	PROVINCE OF MANITOBA DEPARTMENT OF NATURAL RESOURCES WATER RESOURCES BRANCH	ROBLIN - CARTWRIGHT PLANNING DISTRICT AQUIFERS
CHECKED		
PREPARED M.RUTULIS	SUBM. L. Bray APPROVED	SCALE AS SHOWN · DATE 84 09 14 · SHEET 1 OF 1 · FILE NO 10-1-7-1228



ROBLIN-CARTWRIGHT PLANNING DISTRICT

GROUNDWATER POLLUTION HAZARD AREA

MODIFIED AFTER D. SIE, 1978
GROUNDWATER POLLUTION HAZARD
MAP, BRANDON.

NOTE: DETAILED FIELD INVESTIGATIONS
MAY SHOW THAT GROUNDWATER POLLUTION HAZARD
DOES NOT EXIST IN SOME PARTS OF THE INDICATED AREAS.

Map 5.3
BACKGROUND STUDY

DRAWN S.S CHECKED PREPARED M. RUTULIS	PROVINCE OF MANITOBA DEPARTMENT OF NATURAL RESOURCES WATER RESOURCES BRANCH SUBMITTED J. Bray APPROVED	ROBLIN - CARTWRIGHT PLANNING DISTRICT GROUNDWATER POLLUTION HAZARD AREAS SCALE AS SHOWN · DATE 84 09 14 · SHEET 1 OF 1 · FILE NO 10-1-7-1228

5.6 WATER RESOURCES: SURFACE WATER

The Roblin-Cartwright Planning District is located in the Pembina River drainage basin. The Pembina River, which forms the north boundary of the District, flows in a broad U-shaped valley, widening occasionally to form a chain of small lakes. Rock, Lorne and Louise Lakes are situated along the boundary of the District. The bulk of the District is above and south of the Pembina River Valley. Drainage in this area is by means of natural creeks, carrying run-off north and north-east to the Pembina River. Large areas of the District are characterized by dense concentrations of sloughs or potholes without, or with limited, drainage outlets.

There are about 5 miles (8 km) of provincial waterways in the District. The remaining waterways are under municipal jurisdiction (Map 5.4).

Certain lands adjacent to the lakes and streams within the District may be subject to hazards such as flooding, erosion or bank instability. Other areas may have insufficient drainage. Development or other unsuitable lands uses in hazardous areas may lead to acceleration of environmental damages, interference with natural processes, public expenditures for remedial works or assistance, waste of resources and personal loss and hardship.

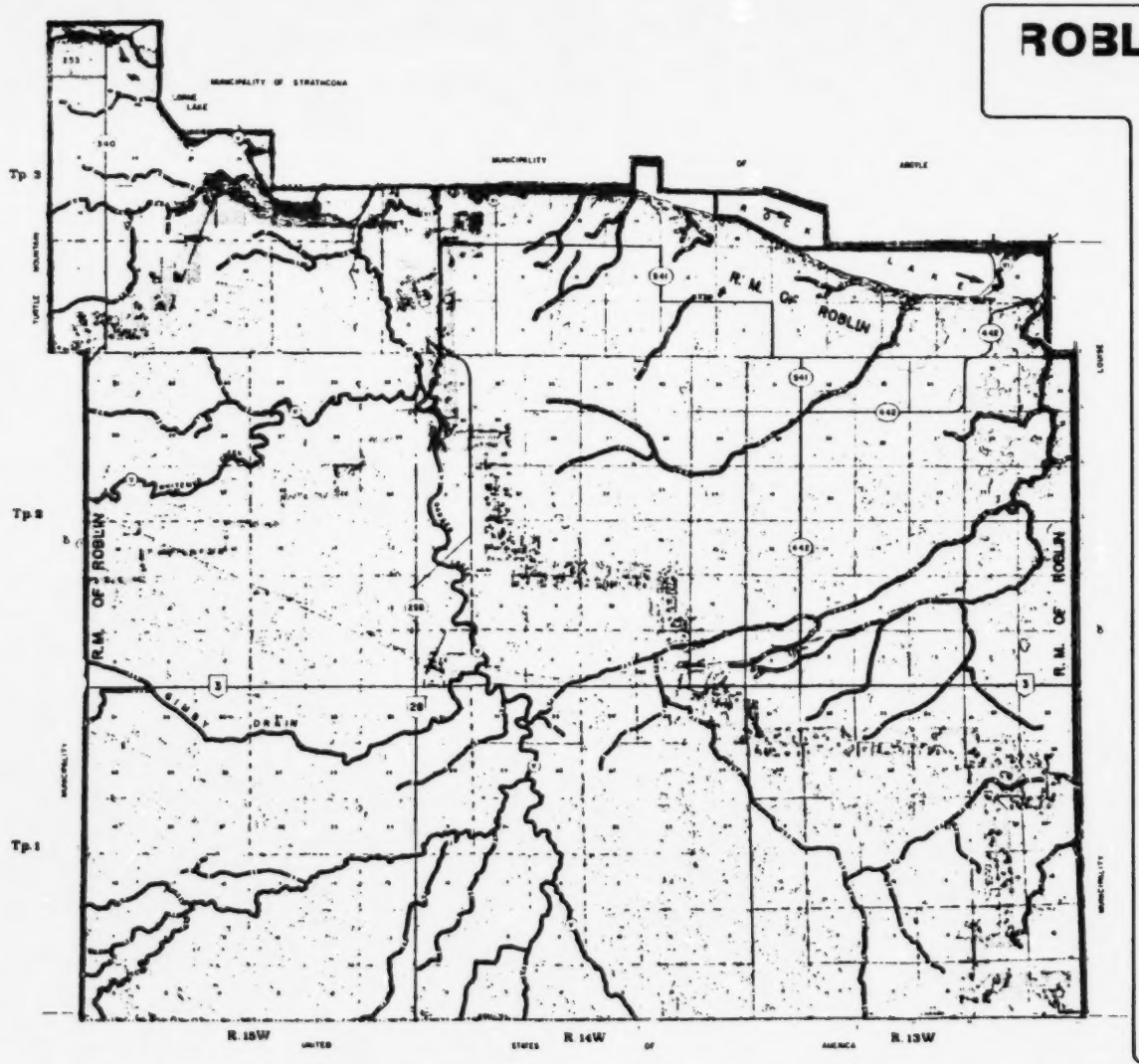
5.7 WILDLIFE RESOURCES

The majority of the Planning District falls within the Waskada Till Plan, an area of flat to more-or-less undulating landscape. Numerous ravines flow northward into Badger Creek or Lorne, Louise and Rock Lakes. Badger Creek is a large tributary of the Pembina River, entering the Pembina River Valley near Neelin. The majority of the plain is largely under cultivation or in open aspect pasture, periodically dotted with morain depressions or potholes.

Wildlife habitat throughout the district is scattered over what is predominantly private land. Habitat is largely confined to small bluff and pothole areas on what are agriculturally very good soils. The habitat that is necessary to produce and maintain all wildlife species is becoming less abundant each year. Population figures for all species of wildlife are largely unavailable.

White-tailed Deer

The Canada Land Inventory ungulate capability rating for this area of south-western Manitoba varies considerably, depending on the locale (Map 5.5). Most of the major ravines and tributaties of the Pembina River as well as the escarpment area of the valley itself are rated Class 1 or 1w winter range for deer. Upstream portions of Badger Creek are rated Class 3w while smaller areas in the northern part of the municipality are rated Class 2 and 3 respectively. At least three townships in the flat uniform area near Holmfield and adjacent to the U.S. border are rated as Class 6 for deer. The remainder of the municipality is classed 4 or 5 for this common big game animal.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

Surface Drainage Systems

LEGEND

WATER COURSE
- 1st ORDER DRAINS
- 2nd ORDER DRAINS
- 3rd ORDER DRAINS
- 4th ORDER DRAINS
- 5th ORDER DRAINS
- 6th ORDER DRAINS
- 7th ORDER DRAINS

LIMITS OF DRAINAGE AREA
CITY, TOWN AND MUNICIPAL BOUNDARIES
PROVINCIAL TRUNK HIGHWAY (3)
PROVINCIAL ROADS (513)
SUBDIVISION BOUNDARY

Map 5.4

BACKGROUND STUDY

SCALE IN MILES

SCALE IN KILOMETRES

It should be recognized that although the capability ratings for much of the area are relatively low, the actual value of existing habitat to white-tails is probably much higher, simply because there is little tree cover in large blocks remaining. Summer range is probably adequate for good deer populations but winter range is confined to the larger blocks of bush and the uncleared slopes of ravines and the Pembina Valley escarpment. Deer surveys of Game Hunting Area 31A, which includes all of district, plus portions of several adjacent municipalities, have estimated the midwinter deer population at more than 2,000 animals.

Waterfowl and Wetlands

The most productive area for waterfowl production is a wide strip of land in the central part of the District that is rated as Class 2 (Map 5.6) by CLI. In the north and south ends of the District there are two areas of Class 3 land which, like the Class 2 rated area, is largely bluff and pothole country. During years of reasonable water levels, these areas are important producers of ducks. The remainder of the District has been rated fairly low for waterfowl production, simply because of the lack of potholes and marshes. Lorne, Louise and Rock Lakes on the District's northern periphery are rated Class 3 and are particularly noted as waterfowl staging areas. In recent years, these three lakes annually act as resting areas for large numbers of migrating Canada and Snow Geese. No reliable population figures are available for staging goose populations, but between the three lakes, it would not be unrealistic to count approximately 50,000 geese frequenting these lakes. Rock Lake is the only formally-designated Game Bird Refuge but the others also function as refuges because of their size.

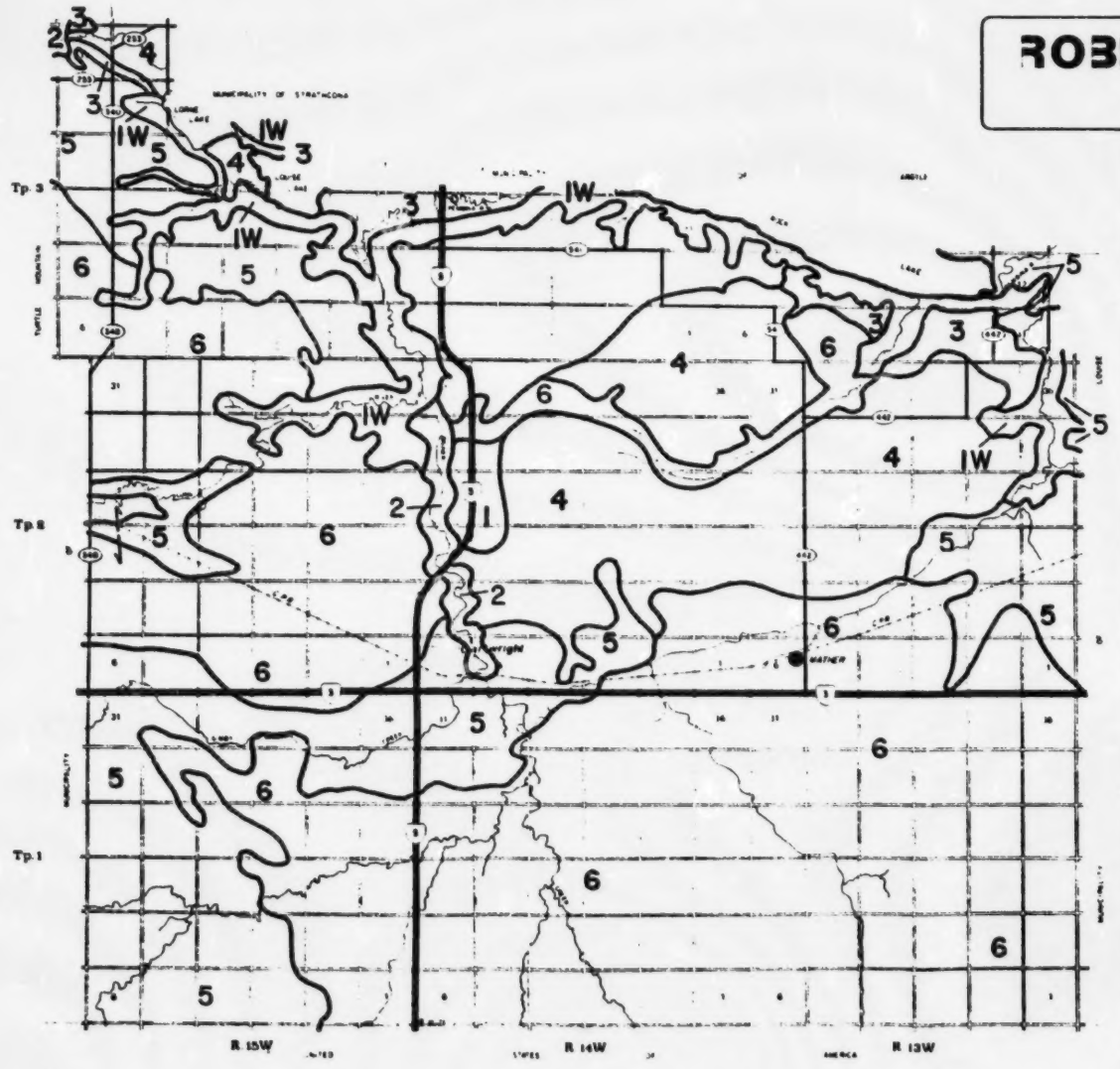
Although there are numerous potholes throughout the District, there are few marshes that exceed 40 acres in size. In Township 2, Range 14 and 15 there are perhaps a dozen marshes which would be of this size or larger in years of average water conditions. Waterfowl production throughout the District is of ducks; there are no confirmed records of nesting geese in recent years.

Furbearers

Furbearers are found throughout the municipality. Aquatic furbearers such as beaver and muskrat will be found in association with wetlands or ravines with a constant water source. Coyotes, red fox, raccoons, weasel, badger are likely to be found anywhere suitable habitat remains.

Non-Game Species

There is no particular species of non-game wildlife in the District that warrants protection or consideration, particularly with regard to habitat. A wide variety of animals and birds in this category occur in the District but their status is unknown. An encroachment on treed or pasture areas continues, as well as escalation of drainage of potholes and sloughs, the resulting habitat loss will result in a decline of wildlife, both game and non-game species.



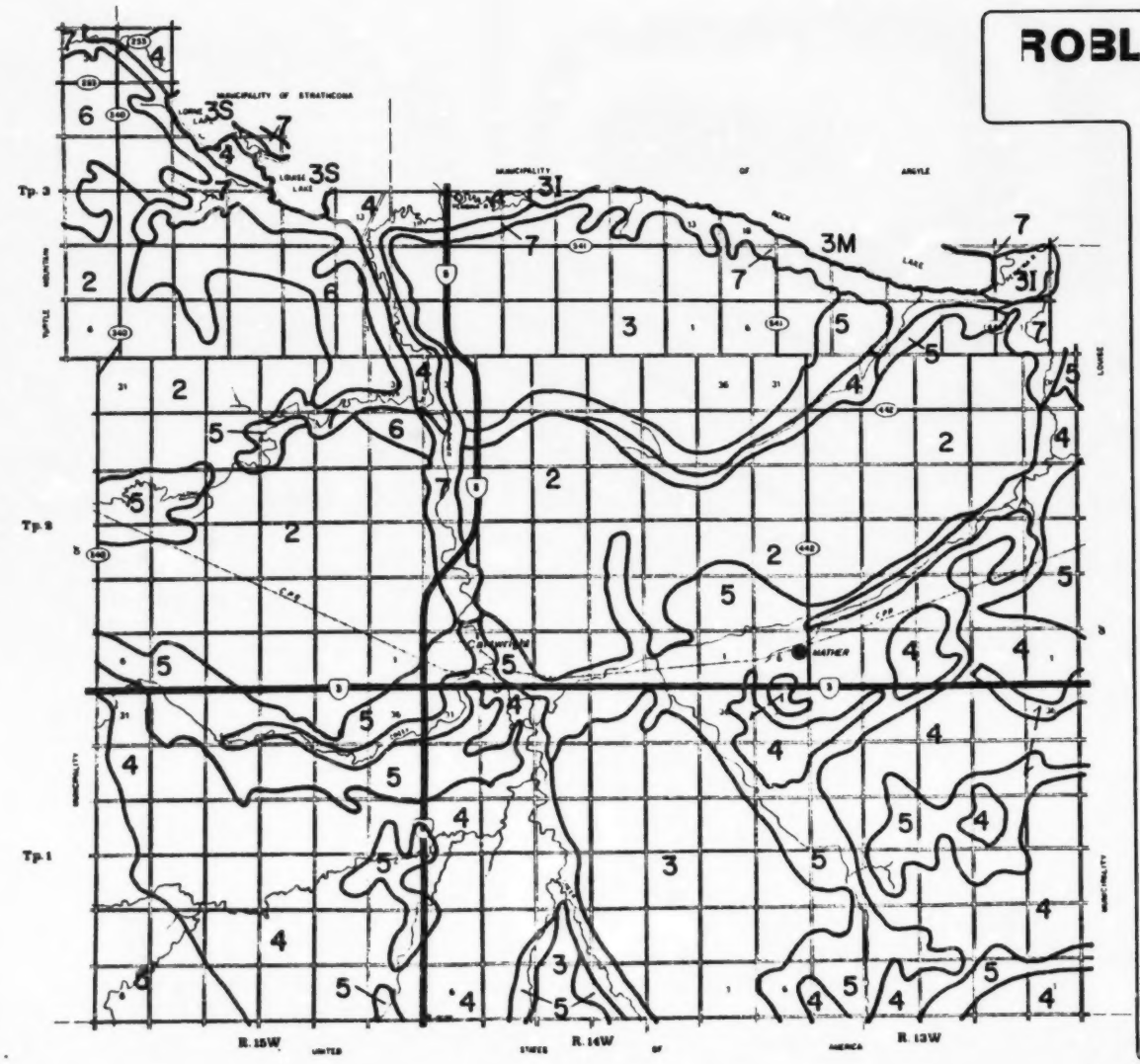
ROBLIN-CARTWRIGHT PLANNING DISTRICT

Land Capability for Wild Ungulates (C.L.I.).*

Map 5.5

BACKGROUND STUDY

*Canada Land Inventory



ROBLIN-CARTWRIGHT PLANNING DISTRICT

Land Capability for Waterfowl (C.L.I.)*

Map 5.6

BACKGROUND STUDY

*Canada Land Inventory

Order-in-Council Wildlife Lands

In the Northern part of the District the Rock Lake Game Bird Refuge, confined to Rock Lake and a narrow margin of upland around the lake, has been in existence for many years. This refuge plays an uncertain role in the protection of waterfowl on the lake during the hunting season.

There are one and one-quarter square miles of Wildlife Management Area within the District, these being the Neelin (NW 14-3-14W) and West Derby (E½ 19 and E½ 29-3-15W) Units of the Pembina Valley W.M.A. (Map 1).

Wildlife Projects

Ducks Unlimited have three projects within this District, these being as follows:

Kissick Project	W½ 5-2-15W
Mather Project	N½ 9-2-13W
	SW 9-2-13W
Rolagaf Project	N½ 27-2-14W
	NW 26-2-14W
	S½ 34-2-14W
	W½ 30-2-14W
	S½ 33-2-14W
	SW 25-2-14W
	NE 24-2-14W

5.8 CROWN LANDS

Crown Land, for the purposes of this section, is defined as all land under Order-in-Council designated as Provincial Park, Provincial Forest, Ecological Reserve, Wildlife Management Area, and Community Pasture, plus all other land administered by the Department of Natural Resources and Department of Agriculture under "The Crowns Lands Act". In addition, all water bodies, streams, rivers, and creeks are considered Crown Lands except where original title has confirmed the lake bed or stream bed to an individual.

There are a variety of acts which affect the adminstration and management of Crown lands. For the purposes here, the principal acts which govern use and management of these lands are:

1. The Crowns Lands Act,
2. The Fisheries Act,
3. The Forest Act,
4. The Provincial Park Lands Act,
5. The Water Power Act,
6. The Rivers and Streams Act,
7. The Wildlife Act, and
8. The Water Resources Administration Act.

In the Roblin-Cartwright Planning District there are approximately 583 hectares of Crown Land, (Map 1 & Table 1), representing approximately 0.8 percent of the land base in the District.

TABLE 1
CROWN LAND COMMITMENTS IN THE ROBLIN-CARTWRIGHT PLANNING DISTRICT, JULY 1984.

Commitment	Number	Area hectares (acres)
Agricultural		
Forage Lease	4	195 (480)
Cash Rental Agricultural Lease	2	129 (320)
Order-in-Council		
Pembina Valley Wildlife Management Area	1	259 (640)
TOTAL PROVINCIAL CROWN LANDS		583 (1,440)

In the Roblin-Cartwright Planning District, the major commitments of Crown land are to agricultural use via leases, and Wildlife Management Area under Order-inCouncil. (An additional parcel, E½ 29-3-15W, is under consideration for addition to Pembina Valley Wildlife Management Area.)

5.9 NATURAL RESOURCES ISSUES

1. The natural resources of the District focus on the recreation and wildlife potential of Rock Lake. The lake and surrounding area are felt to offer a considerable potential for recreation related industries and wildlife. However, this potential has not been developed to any great extent.

2. The use of Rock Lake is limited by algae and weed growth which causes fish winterkill and detracts from the recreational value of the lake. A solution must be found to this problem before the full potential of the lake can be realized.

3. Fish spawning areas in the Pembina Valley lake system and its tributaries are a valuable resource which may be threatened by some land uses.

4. There is an ample groundwater supply to meet the needs of the District however some of the aquifers are susceptible to pollution and land uses over these areas should be suitably regulated.

5. Some land next to lakes, creeks or drains may be subject to flooding or bank instability and should not be used as building areas.

6. Wildlife habitat is being lost as land is cleared. Certain areas or certain types of land should be identified as wildlife habitate areas and clearing should be severely restricted or prohibited.

Chapter 6 - AGRICULTURE

6.1 INTRODUCTION

The Roblin-Cartwright Planning District is in the South Central part of the Province. Class 3 soils, comprising 89,585 acres, are the largest single soil class but other soils range from Class 2 to Class 6. These classes are defined under the Canada Land Inventory system with Class 1 being the best and Class 7 essentially non-agricultural.

The District contains 7.5 townships, the majority of which are suitable for agriculture; either crops or livestock. Up to this point very little land fragmentation has taken place. Livestock operations within the R.M. have followed the same trend as elsewhere resulting in some fairly large scale concentrated operations.

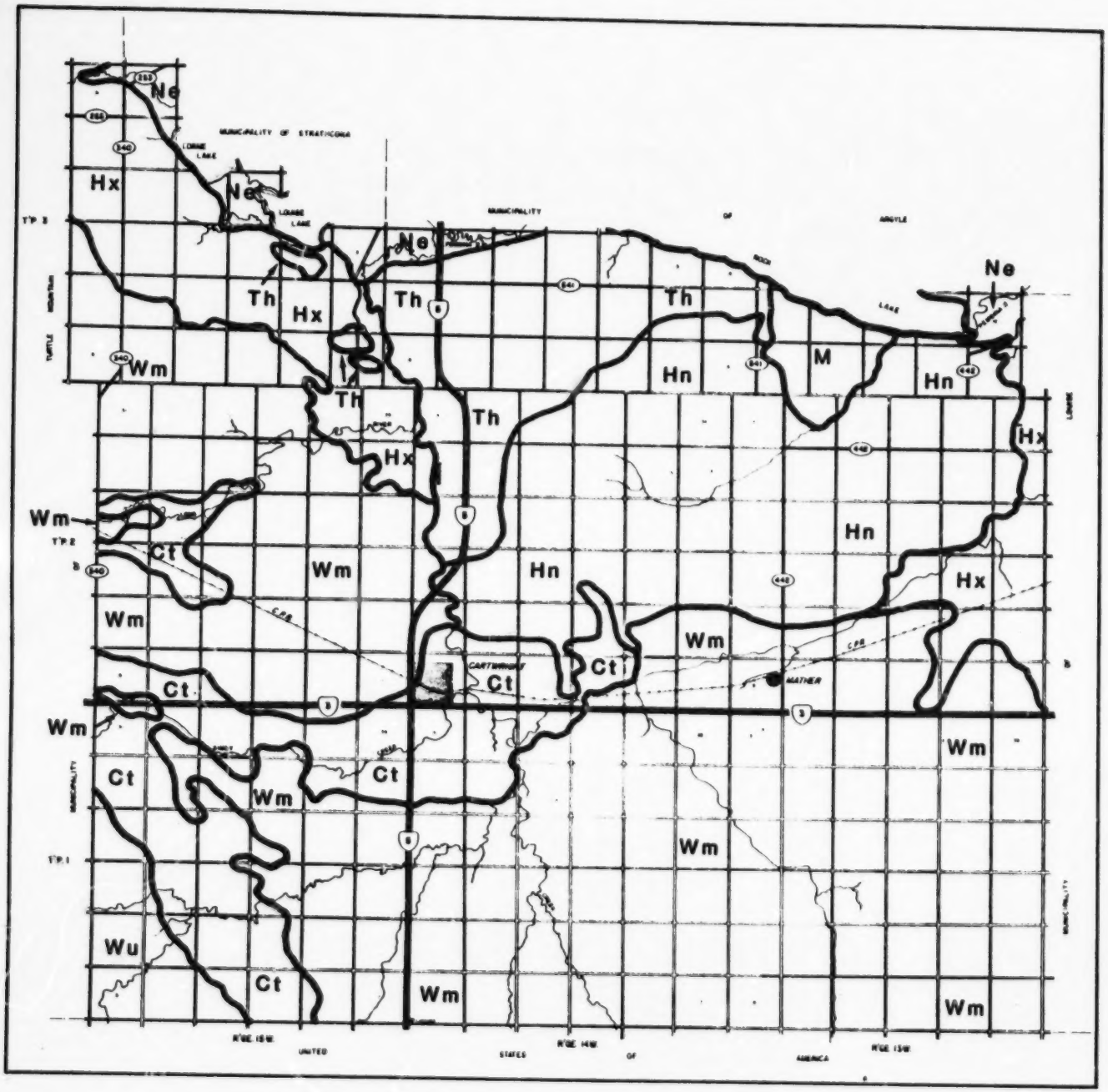
This report will analyze the agricultural resources of the area, use of these resources, agricultural production and related planning issues. It is intended as background information for the District Board in establishing agricultural land use objectives and policies in their Development Plan.

6.2 AGRICULTURAL RESOURCES

Only about 7% of the earth's land mass is suitable for agricultural production. One of the greatest threats to this resource is the expansion of urban areas and unplanned, haphazard development throughout rural areas. When productive land is lost it is usually lost for good.

In Canada, particularly in the east, there has been a steady loss of farm land. From 1941 to 1976 Ontario lost 20% of its farmland and Quebec lost 50%. Manitoba's farmland has not been so severely threatened but it is a fact that the 490,000 acres of Class 1 soil in Manitoba is mostly located near towns and cities and in areas where non-agricultural development is increasingly taking this land out of production.

The land base used by agriculture is the most important natural resource in the R.M. of Roblin. The two villages serve mainly as service centres for the agricultural industry. Production of agricultural crops is greatly influenced by the quality of the soil and the climate. While Roblin Municipality does not contain any Class 1 soils, 65% of the land base is Class 2 or 3 soils which can be highly productive for a considerable number of agricultural crops.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

Generalized Soil Map

Legend:

- **Ct** Cartwright Gravelly Loam – Clay Loam
- **Hn** Hilton Clay Loam
- **Hx** Heaslip Complex
- **M** Marringhurst Gravelly Loam – Coarse Clay Loam
- **Ne** Neelin Loam – Silty Clay Loam
- **Th** Tiger hills Clay Loam
- **Wm** Waskada (Modified) Light Loams – Clay Loam
- **Wu** Waskada (Smooth Undulating) Clay Loam

Source: Manitoba Agriculture

R.M. OF ROBLIN

SCALE: 1"=2.75 Mi. (Approximate)

N

DATE: JAN. 1985

Map 6.1

6.3 SOILS

There are four main soil types in the R.M. of Roblin with small amounts of three or four other soils (see Map 6.1). These soils were developed on boulder till or reworked boulder till and range from Clay loams to sandy clay loams with differing substrate. The four main soils are called: Waskada, Hilton, Tiger Hills and Heaslip. These are fairly fertile soils but in the undulating pot hole country there can be considerable salinity at the edges of the potholes and low spots in the fields. Stones are variable but not as plentiful as might be expected when the parent material is glacial till. Soil erosion mainly by wind but also by water can be a problem. Soil drifting occurs fairly readily during periods of drought.

The other main soils are Cartwright gravelly loam to Clay Loam over gravel and Sandy Outwash and Marringhurst sandy loam over gravel. Cartwright soils are shallow with imperfect drainage and generally inferior with the better drained soils being somewhat droughty and the poorly drained under the influence of ground water in wet seasons.

Marringhurst are developed on gravelly outwash, usually fairly level with excessive internal drainage. Drought and wind erosion are problems.

6.4 SOIL CAPABILITY FOR AGRICULTURE

Mineral soils are grouped in seven classes on the basis of soil survey data and a field survey (see Map 6.2). The Canada Land Inventory Capability Classes form a basic integral part of the Provincial Land Use Policies. Class 1 soils have no significant limitations in use for crops. There are no Class 1 soils in the R.M. of Roblin.

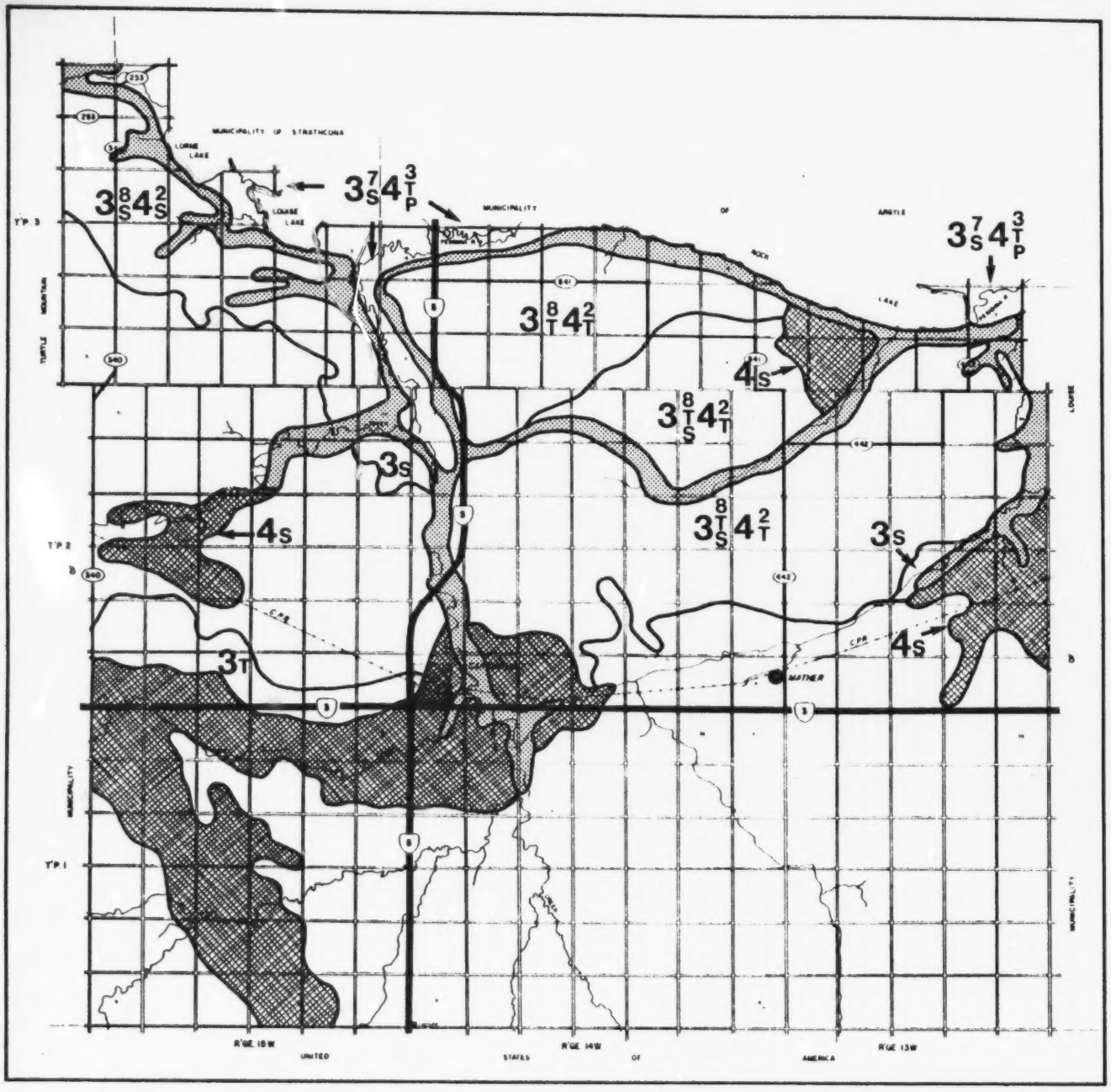
Class 2 soils have moderate limitations that restrict the range of crops.

Class 3 soils have moderately severe limitations that restrict the range of crops or require special practices and Class 4 soils have severe limitations.

Class 5 soils have very severe limitations that restrict their capability to producing perennial forage crops and improvement practices are feasible.

Table 1 indicates that by far the largest area - 89.585 acres or 49% - is Class 3. The limitations in this Class affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops and methods of conservation. Under good management they are fair to moderately high in productivity for a fair range of crops.

Much of the Class 3 soils have a subclass S which indicates adverse soil characteristics such as one or more the following: undesirable structure; low permeability; a restricted rooting zone because of soil characteristics; low natural fertility; low moisture-holding capacity and salanity.



ROBLIN-CARTWRIGHT PLANNING DISTRICT

BACKGROUND STUDY

Soil Capability for Agriculture

Legend:

- Class 3 ($3^{5}_{S}2^{3}_{T}5^{2}_{W}$) Except Where Indicated
- Class 4 ($4^{8}_{S}5^{2}_{S}$) Except Where Indicated
- Class 6 (6_T)

Source: Canada Land Inventory

R.M. OF ROBLIN

SCALE: 1"=2.75 Mi. (Approximate)

N

DATE: JAN. 1985

Map 6.2

Many of the Class 4 soils in the R.M. of Roblin are quite fertile but are down-graded to Class 4 because of topography.

TABLE 6.1
LAND CAPABILITY FOR AGRICULTURE
IN THE R.M. OF ROBLIN

Subclasses	Classes (Acres)									
	1	2	3	4	5	6	7	8	0	Total
S	0	0	53,663	21,928	3,497	0	0	0	0	79,088
T	0	25,333	35,922	9,457	0	10,861	0	0	0	81,573
W	0	0	0	0	17,822	58	0	0	0	17,880
X	0	3,037	0	0	0	0	0	0	0	3,037
TOTAL	0	28,370	89,585	31,385	21,319	10,919	0	0	0	181,578

Note: Subclass S = adverse soil conditions
Subclass T = adverse topography
Subclass W = excess water
Subclass X = two or more adverse characteristics which singly are not serious enough to affect the class rating.

6.5 EROSION

Wind and water erosion have occurred to some degree over most of the R.M. Wind erosion is usually more severe on the sandier soils, however, the fine loam and clay particles can erode considerably if conditions are droughty and windy and proper management is not applied.

The protection of the remaining tree cover within the Municipality, plus encouragement to plant field shelterbelts, should be considered in the planning process. In the areas which have a steep slope, Council may wish to consider a permit system for tree clearing in order to prevent severe soil erosion.

6.6 AGRICULTURAL DEVELOPMENT

The Agricultural Industry is the major industry in the municipality of Roblin and represents a very large component in the region's economic activity. The Village of Cartwright and the unincorporated Village of Mather are mainly service centres for the agricultural community.

TABLE 6.2
AVERAGE FARM SIZE

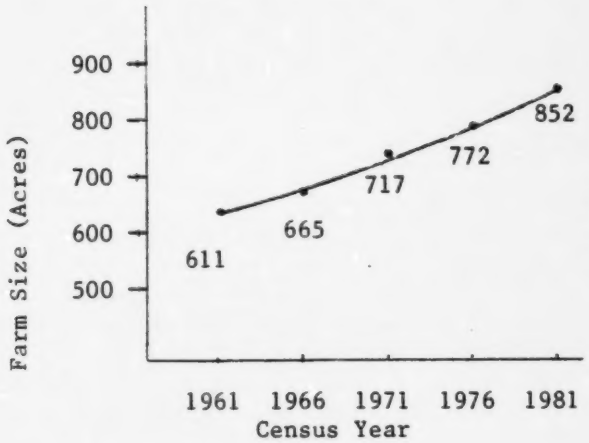
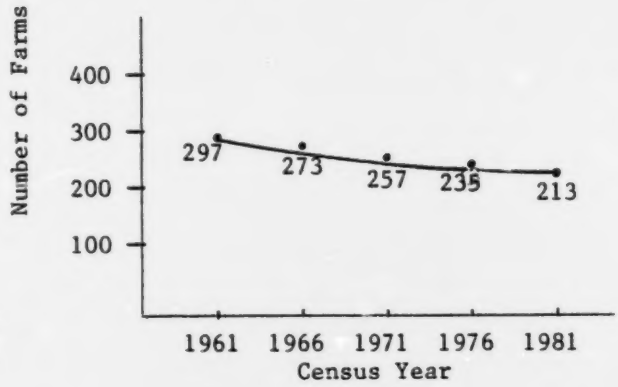


TABLE 6.3
NUMBER OF FARMS



Source: Statistics Canada

Farm size in the Rural Municipality of Roblin has grown in line with other areas of the Province and the number of farms has decreased (see Tables 6.2 & 6.3). In 1981, of 213 farms in Roblin, 87 were 760 acres or larger. This means that 41% of the farms used approximately 64% of the land in the Rural Municipality (see Table 6.4). One note of caution about these statistics is that there are two large Hutterite Colonies in the R.M. Although these would be shown as one farm there are many farmers in each colony.

TABLE 6.4
SIZE OF FARM BY ACRE CATEGORY
R.M. OF ROBLIN

Census Year	Farm Size in Acres												
	Under 3	3-9	10-69	70-239	240-239	400-559	560-759	760-1119	1120-1599	1600-2239	2240-2879	Over 2880	TOTAL
1961	1	1	1	24	62	80	64	51	10	2	1	-	297
1971	1	-	-	21	36	54	65	51	16	7	2	-	253
1981	-	2	6	20	20	33	45	42	27	12	2	4	213

Source: Statistics Canada

The increase in farm size and the increasing mechanization of farm operations means that farmers throughout the Province require a greater capital investment. Just as a town plan is partly designed to protect a persons investment in his house, the proposed Roblin-Cartwright Plan should include policies to protect this farm investment.

Livestock production changes with market demand. Table 6.5 shows that in 1981 pig production was substantially up over 1976. Within a year or two pig production may have dropped again, depending on the market. These fluctuations are a factor with every type of livestock. It seems however that livestock production is increasingly becoming a specialized type of agriculture rather than part of a more diversified farm.

TABLE 6.5
LIVESTOCK COMPARISONS 1961-1981
R.M. OF ROBLIN

Year	Cattle		Pigs	Sheep	Horses	Hens/ Chickens	Number of Farms
	Beef	Milk Cows					
1961	9711	998	3595	669	444	26494	297
1966	11060	626	2915	196	311	17344	273
1971	10708	375	9874	157	252	11864	253
1976	13914	257	5994	137	N/A	9368	235
1981	9507	255	12330	767	163	21506	213

Source: Statistics Canada

The evolution of the livestock and poultry industry, from the relatively small and diversified, individual farms, into the large scale highly specialized animal production units of today, is the result of increased mechanization in product handling, technology and nutrition. Inherent in these large operations are waste management problems, odours and flies. These nuisances increase the conflicts between farm and non-farm uses.

The trends in crop production have been as dramatic as those in the livestock production. Some of the changes presently taking place in crop production are as follows:

1. There is a steady trend to farm consolidation which is the result of new technology making it physically and economically possible for one farmer to operate larger tracks of land.

2. New technologies in plant breeding introduce new cereal varieties and oil crops which are presently grown in the Municipality.

3. New technology is also introducing new chemical sprays which allow for higher yields and more mechanization. At present, research is showing that aerial application of various weed control chemicals applied to bush and pasture lands will dramatically increase carrying capacities. This is important when assessing some of the lower class land for future agricultural use.

4. New technology in water management control will result in the drainage or the irrigation of soils which at one time were considered physically unfit for agricultural use.

5. New methods of trash management have allowed production to take place on fairly fragile sandy type soils.

6.7 IMPACT OF NON-FARM DEVELOPMENT ON FARMING

Problems are created by the scattering of random non-farm residences in an agricultural area. Canada is a large country, but only about 7% of its land is considered prime agricultural land. The production of food in Canada is the most important industry therefore it is very important to the Country, the Province, the Planning District, and every individual that this land base be preserved for present and future generations. The indiscriminate use of this land base can have long-range serious effects. The location of one non-farm resident in an agricultural area can have shadow effects which cover a much larger area than the 2 or 5 acre lot which it uses, and as a result restrictions have been known to be placed on the agricultural investment.

Complaints by non-farm residents include:

1. Complaints about odours, flies and noise from livestock operations.

2. Complaints about the level of services which often result in increased services with the subsequent increase of land values and taxes to the surrounding farmers.

Farmers complain about the following:

1. Increased fencing costs.

2. Increased nuisance in their farm operations because of smaller fields and irregular shaped fields.

3. Nuisance of pets chasing livestock, etc.

4. Lack of respect for property by snowmobile riders, etc.

5. Possible control of the Rural Council by non-farm ratepayers.

6. Increased land prices because of smaller parcels raising the possibility of increased assessment and higher taxes.

7. Increased cost of spraying fungicides and herbicides with the increased possibility of damage suits from drift of chemicals to trees and gardens of non-farm residences.

6.8 AGRICULTURE ISSUES

1. Agriculture is the principal resource of the District and, although it is not threatened at the present time, agricultural land and agricultural activities must be protected.

2. Retention of agricultural land in large parcels will help to make farming more economical. This may involve a restriction of the number of parcels permitted per quarter section.

3. Where agriculture abuts urban uses, such as around Cartwright, Mather or the Rock Lake subdivision, certain agricultural practices, such as raising livestock, spreading manure or aerial spraying, may have to be restricted in order to avoid conflicts.

4. A balance must be found between the desire for more cultivated land that leads to clearing on slopes or along creeks, and the need to limit erosion and preserve wildlife habitat.

Chapter 7 - ECONOMICS

7.1 INTRODUCTION

This portion of the report looks at two aspects of the economy in the District. The first deals with business activity: the types, the locations and the prospects. The second deals with the finances of the municipalities: where they get their money, where they spend it and what the debt is.

7.2 BUSINESS ACTIVITY

By far the largest business activity is agricultural production in family farm operations. Most of the rest of the business activity supports agriculture and the majority is located in Cartwright.

Retail activity in Cartwright includes:

- 1 grocery store;
- a drug store (no prescriptions);
- bake shop;
- catalogue orders; and
- lumber and hardware

Service activity in Cartwright includes:

- 2 automobile service stations;
- a bank and a credit union;
- 2 restaurants;
- a motel;
- an insurance agency;
- beauty salon;
- a welding shop;
- an electrical repaid shop; and
- a pool hall/coin laundry

The remaining business activity is agricultural retail and service and includes:

- a Pool elevator;
- International and Case equipment sales and service;
- fertilizer sales (just east of Cartwright)

Most businesses have only a few employees and no manufacturing in this list of Cartwright businesses. They essentially serve Cartwright and the surrounding rural population.

Mather businesses also serve the surrounding agricultural uses and include a Pool elevator, a grocery store, service station, seed cleaning and a construction contractor.

The residents of the R.M. depend on Mather and Cartwright for their local retail and service needs. The only exceptions are an anhydrous ammonia fertilizer sales operation in the south-east part of the R.M. and a seasonal grocery store at the Rock Lake subdivision. The R.M. also contains the only manufacturing operation in the District which is the construction of ready-to-move homes.

Roblin-Cartwright may be suitable for the development of some kind of agriculture product processing industry. However, the two drawbacks are distance to market and a ready labour supply. It appears that most business activity will continue to serve local agriculture. Rock Lake may have some potential for seasonal recreation activity and spin-off businesses from recreation but this may depend on improving the quality of the lake water (See Chapter 5 - Natural Resources for details on Rock Lake).

7.3 MUNICIPAL FINANCE POSITION

Since a plan generally indicates areas where a municipality should be spending money on improvements, it helps to have an accurate picture of the municipality's finances. In this way they can assess their ability to pay for any proposed improvements. The following is an evaluation of the financial position of the R.M. of Roblin and the Village of Cartwright including assessment, mil rate, revenues, expenditures and debt of each municipality.

a) Roblin

A municipality raises money mainly through taxation which is based on assessment. Table 7.1 shows the assessment base of Roblin. The figures for 1976 and 1981 are used because these are census years and coincide with the dates used for statistics elsewhere in this report. The figures for 1983 are used because these are the last published financial figures for Manitoba Municipalities. This evaluation generally looks at changes between 1976 and 1983.

TABLE 7.1
R.M. OF ROBLIN ASSESSMENT BASE

	1976	1981	1983
Land Assessment	3,911,990	4,218,920	4,213,510
Building Assessment	134,230	231,070	253,410
Personal Property Assessment	-	-	-
TOTAL TAXABLE ASSESSMENT	4,046,220	4,449,990	4,466,920
Business Assessment	7,470	14,610	16,550
Exempt Property Assessment	71,990	105,480	115,550
Equalized Assessment	4,062,800	4,473,840	4,484,480

Table 7.1 shows an increase in equalized assessment of 10.4% between 1976 and 1983. Equalized assessment is the total assessment adjusted to the same rate as the rest of the Province. In other words, it is equalized so that, for example, when two municipalities are paying into the same school district, they are each paying the same amount per dollar of assessment. Over the same period the overall assessment increase for rural municipalities throughout the Province was 28.2%. The assessment of neighbouring municipalities increased as follows: Louise 7.9%; Turtle Mountain 21%; and Argyle 12.6%.

Taxation rates are established when a municipality adopts its budget. Part of this budget will be paid for by business taxes, government contributions and other revenues. The majority however is paid through property tax where each taxpayer pays an amount which is equal to his proportion of the equalized assessment. This is described in terms of a mil rate where one mil equals $1 for each $1000 of assessment.

Table 7.2 shows taxation rates for Roblin. The school portion varies depending on whether the property is in the Turle Mountain or the Pembina Valley School District. Also, since Mather is an unincorporated village district, it has its own budget and therefore a different tax rate.

TABLE 7.2
R.M. OF ROBLIN TAXATION RATES

	1976	1981	1983
Municipal (mils) - General	33.5	44.68	58.32
- Mather	37.3	39.39	44.24
School(mils) - Turtle Mountain	51.0	69.32	80.26
- Pembina Valley	50.7	77.28	85.52
Business Tax (%)	10%	5%	5%

Table 7.2 shows a general municipal mil rate increase of 74.1% from 1976 to 1983. The Mather rate increased by only 18.6%. The Turtle Mountain and the Pembina Valley School Divisions mil rates increased 57.3% and 68.7% respectively.

The taxation rate applied to the assessment base provides the revenues for a municipality. Table 7.3 shows current revenues for 1976, 1981 and 1983.

TABLE 7.3
R.M. OF ROBLIN CURRENT REVENUES

	1976	1981	1983
Property Taxes			
- schools	208,486	326,490	371,270
- debt charges	456	351	311
- general	165,064	234,963	298,447
- other	2,713	11,817	11,903
- TOTAL	376,719	573,621	681,931
Business Tax			
- TOTAL	747	731	828
Total Tax Imposition	377,466	574,352	682,759
Government Contributions			
- grants in lieu of taxes	1,799	3,641	4,013
- unconditional grants	16,585	21,630	27,205
- conditional grants	1,807	13,509	10,667
- TOTAL	20,191	38,780	41,885
Other Revenue			
- TOTAL	11,165	30,545	24,774
Total Revenue			
- TOTAL	408,822	643,677	749,418

The total revenues have increased by 83.3% from 1976 to 1983 due to assessment and mil rate increases. Unfortunately, because of the small assessment increase most of the additional revenue was raised through mil rate increases thus increasing the tax burden on individual taxpayers. The overall revenue increase for rural municipalities throughout the Province, during the same period, was 82.9%. Neighbouring municipalities revenues increased as follows: Louise, 70.9%; Turtle Mountain, 81.8%; and Argyle, 66.8%. The proportion of government contributions has increased from 4.9% of the total in 1976 to 5.6% in 1983. The schools portion accounted for 54% of property tax revenue in 1983.

Table 7.4 shows current expenditures for the operation of the R.M. of Roblin.

TABLE 7.4
R.M. OF ROBLIN CURRENT EXPENDITURES

	1976	1981	1983
General Government	41,732	70,941	84,085
Protection	2,162	4,020	6,727
Transportation	100,023	162,386	190,463
Environmental Health	284	418	1,587
Public Health	1,595	1,353	1,812
Welfare	-	-	-
Environmental Planning	358	25	89
Recreation	10,784	30,098	24,937
Economic Development	5,105	8,119	10,616
Education	209,491	326,540	373,590
Fiscal Services	28,893	39,977	51,012
TOTAL EXPENDITURES	400,427	643,877	744,918

The single largest item is schools, however the amount of the schools budget is not set by the R.M. and when the money is raised through taxes it is simply passed on the the School Boards. The two largest items under the R.M.'s control are transportation (the development and maintenance of road allowances) and general government.

From 1976 to 1983 the expenditures grew by 86%. In 1983 the major expenditures were education, which accounted for 50% of the total expenditures, transportation, 26% and general government, 11%.

Table 7.5 shows capital debt for Roblin. A municipality's ability to pay for improvements depends, in part, on how much they are already in debt. The Department of Municipal Affairs has suggested that the limit for capital debt for any municipality should be 30% of their equalized assessment.

TABLE 7.5
R.M. OF ROBLIN CAPITAL DEBT

	1976	1981	1983
Administration	-	-	-
Protection	-	-	-
Transportation	-	-	-
Water and Sewer	-	-	-
Social Services	-	-	-
Recreation	2,250	1,000	500
Other	-	-	-
Total Unmatured Debentures	2,250	1,000	500
Deferred Liabilities	-	-	-
Total Capital Debt	2,250	1,000	500
30% of Equalized Assessment	1,218,840	1,342,152	1,345,344

In 1983 the R.M.'s debt of $500 was for their arena and represented .01% of their assessment. The R.M. is now debt free. While this suggest an ability on the part of Roblin to incur major new debts for projects suggested in the Development Plan it should also be remembered that the growth of assessment has been slow. This means that the R.M. would have to increase taxes on existing development rather than tax new development to pay this debt.

b) Cartwright

The assessment base for Cartwright is shown in Table 7.6.

TABLE 7.6
VILLAGE OF CARTWRIGHT ASSESSMENT BASE

	1976	1981	1983
Land Assessment	66,850	70,420	77,860
Building Assessment	405,380	484,070	585,390
Personal Property Assessment	-	-	-
TOTAL TAXABLE ASSESSMENT	472,230	554,490	663,250
Business Assessment	26,660	28,190	39,540
Exempt Property Assessment	178,590	230,810	236,240
Equalized Assessment	498,170	593,330	566,580

The 1983 Cartwright's assessment was only 12% as high as the R.M.'s. From 1976 to 1983 equalized assessment grew 13.7%, slighly more than the R.M.'s increase. Over the same period the overall assessment increase for towns and villages throughout the Province was 41.7%, considerably more than Cartwright's. The assessment of neighbouring towns increased as follows: Killarney, 48.3%; Crystal City, 28.4%; and Pilot Mound, 27.8%.

TABLE 7.7
VILLAGE OF CARTWRIGHT TAXATION RATES

	1976	1981	1983
General Municipal (mils)	30.0	50.34	56.35
Education (mils)	51.3	68.91	63.35
Business Tax Rate (%)	10%	10%	10%

Table 7.7 shows that between 1976 and 1983 the general municipal mil rate has increased by 87.8% while the education mil rate has increased by only 23.5%. In fact, there was a slight decrease since 1981. Education accounts for 52.9% of the mil rate and is collected for the Turtle Mountain School Division.

TABLE 7.8
VILLAGE OF CARTWRIGHT CURRENT REVENUES

	1976	1981	1983
Property Taxes			
- schools	27,416	43,478	47,768
- debt charges	15,390	15,892	2,545
- general	14,970	29,447	39,650
- other	4,305	5,245	5,740
- TOTAL	62,081	94,092	95,703
Business Tax			
- total	2,666	2,819	3,954
TOTAL TAX IMPOSITION	64,747	96,911	99,657
Government Contributions			
- grants in lieu of taxes	1,499	5,405	6,772
- unconditional grants	5,202	8,935	11,549
- conditional grants	960	10,701	3,652
- TOTAL	7,562	25,041	21,923
Other Revenue			
- TOTAL	4,159	6,096	3,879
Total Revenue			
- TOTAL	76,468	128,048	125,459

Approximately 80% of revenues are raised through taxes, 17% by government grants and 3% from other sources. The total revenue from 1976 to 1983 increased by 64.1%, however, as in Roblin, there has been little assessment growth therefore this increased revenue resulted mainly from higher taxes. During the same time, the government grants portion of revenues has increased from 9.9% of the total in 1976 to 17% in 1983 (with a high of 19.6% in 1981).

During this same 1976 to 1983 period the overall revenue increase for towns and villages throughout the Province increased by 89.0%. The revenue for neighbouring towns increased as follows: Killarney, 129.3%; Crystal City, 63.7%; and Pilot Mound, 62.7%.

TABLE 7.9
VILLAGE OF CARTWRIGHT CURRENT EXPENDITURES

	1976	1981	1983
General Government	12,575	17,903	13,304
Protection	2,085	4,416	6,953
Transportation	10,763	22,625	28,045
Environmental Health	4,305	5,800	6,270
Public Health	841	830	1,377
Welfare	23	-	-
Environmental Planning	210	141	225
Recreation	2,267	14,381	8,030
Economic Development	68	-	200
Education	27,581	46,180	50,704
Fiscal Services	16,138	16,829	4,299
Total Expenditures	76,856	129,105	119,407

As usual the current expenditures shown on Table 7.9 have education as the largest single expenditure. The Village has no influence over this figure. They simply collect the amount requested by the School Board.

Expenditures increased 55% from 1976 to 1983. These increases ranged from only 5.8% increase in general government expenses to 254% for Recreation and 233% for Protection.

TABLE 7.10
VILLAGE OF CARTWRIGHT CAPITAL DEBT

	1976	1981	1983
Administration	-	-	-
Protection	-	-	-
Transportation	-	-	-
Water and Sewer	74,087	14,661	9,272
Social Services	-	-	-
Recreation	-	-	-
Other	-	-	-
Total Unmatured Debentures	74,087	14,661	9,272
Deferred Liabilities	-	-	-
Total Capital Debt	74,087	14,661	9,272
30% of Equalized Assessment	149,451	177,999	169,974

Cartwright's major debt, shown on Table 7.10 was for extensions to the sewer and water system. This debt is now down to $7,183 however, another debenture of approximately $22,000 was recently issued to cover sewer and water construction in the south part of the village. This puts the current debt at $29,183 or about 5% of equalized assessment. This is well within the 30% guidelines however, Cartwright is not experiencing any growth in the assessment base to help pay for future debts.

c) Summary

The assessment base increased very slowly from 1976 to 1983. Increases in land prices and some new construction has pushed the Roblin assessment up 10.4% and the Cartwright assessment up 13.7% during this period. Revenues in Roblin rose by 83.3% and expenditures by 86%. In Cartwright during this period revenues were up 64.1% and expenses were up 55.4%.

From the point of view of current debt load, both Roblin and Cartwright are capable of financing new projects such as road improvement or expansion of some municipal services. However, while many other municipalities can look forward to continued growth of their assessment base to help pay for additional debts, there is no indication that this will be the case in either Roblin or Cartwright. Therefore, any additional debts will likely have to be paid by increasing the taxes of their existing ratepayers.

7.4 ECONOMIC ISSUES

A development plan can really have only minor and indirect influence on business activity. However, when making land use decisions, the Board and the Councils should be aware of certain economic issues.

1. The agricultural service industry is important to this district and should be encouraged to provide the best possible service to local farming activity.

2. Small business may have some potential and should be encouraged in the following areas:

   a) agriculture product processing;
   b) recreation associated with Rock Lake

Councils have a much more direct influence on municipal economic issues. This study identifies the following:

3. Both Roblin and Cartwright have very low debts as a proportion of their assessment and are capable of financing some necessary capital works in the future. However, paying off these expenditures in the future will be more difficult because of the low increase in assessment.

Chapter 8 - OTHER ISSUES

8.1 INTRODUCTION

The preceding chapters deal with most of the issues and topics of concern to the District. This chapter will deal with several remaining issues which should be considered before preparation of the Development Plan.

8.2 HIGHWAYS

The Roblin-Cartwright Planning District is served by the following system of provincial highways (shown on Map No. 2.1 in Chapter 2 - Rural Land Use);

1. Provincial Trunk Highways (P.T.H.) No. 3 (east-west) and No. 5 (north-south); and
2. Provincial Roads (P.R.) No. 442, No. 541 and No. 340.

In addition to this road system there are a number of "grant-in-aid" streets in Cartwright for which the Provincial Government shares the cost of construction and repair. These grant-in-aid streets are discussed in Chapter 4 - Urban Land Use, Section 4.4, Servicing.

Development along all P.T.H.'s and P.R.'s is regulated by requiring a permit for any construction within 125 feet of the road allowance. In addition to this general control line there are controls around the following intersections:

1. a control circle of 500 feet from the centre of the intersection of P.T.H. #3 and #5; and
2. a control circle of 350 feet from the centre of the intersection of P.T.H. #3 and South Street in Cartwright.

Within these control circles any construction requires a permit from the Department of Highways. A permit is also required to construct any access to a P.T.H. or P.R.

8.3 HISTORIC RESOURCES

There are a number of historic sites and buildings in Cartwright and Roblin which are of local historical significance and which may be of provincial or national historical significance. The Historic Resources Branch of the Provincial Department of Culture, Heritage & Recreation is currently preparing a report on the Heritage Resources of the Roblin-Cartwright Planning District. This will provide a fairly comprehensive inventory of those sites or buildings which should be protected.

Some historic buildings, such as Christ Church in Cartwright, and historic sites, such as the orginal location of Cartwright, are well known and their importance is appreciated. Others, such as old residences, barns or schools may be important. The Councils should consider historic resources when they are evaluating any development proposal.

When a comprehensive list of historic sites and buildings is available this will assist Councils' evaluation of development from a historical perspective.

8.4 OTHER ISSUES

1. Any development adjacent to the Provincial highways system should ensure that it does not diminish the safety or efficiency of the highway.

2. Council should try to identify and protect historically significant sites and buildings and, when a comprehensive list of historcally significant sites and buildings is produced by the Provincial Government, this should be used as the primary source for identification.